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SURGEON-GENERAL'S OFFICE,
Columbus, O., Oct. 22d, 1864.

Prof. John Dawson, M.D., Editor of Med. and Surg. Jour.:

DEAR DOCTOR,—I herewith send you two reports from among many received at this office. Believing them to be of interest to the profession, I send them to you for publication.

Very respectfully,
R. N. BARR,
Surg.-Genl. of Ohio.

Report of the Surgeon of the 16th Regiment O. V. I.

CAMP CHASE, Oct. 15, 1864.

R. N. Barr, Surgeon-General State of Ohio:

SIR,—I have the honor to report the arrival of the Sixteenth Ohio Infantry Volunteers at this place, for muster out upon expiration of term of service.

This regiment was organized at Wooster, in October, 1861. At the time of leaving the State it numbered 37 officers and 891 enlisted men. It was afterwards reinforced at different periods by the addition of 4 officers and 259 recruits, thus making an aggregate of 1,191 officers and men.

The regiment has served in Virginia, Kentucky, Tennessee, Mississippi, Arkansas, Louisiana and Texas. It was engaged in the eventful campaign against Vicksburg, from the battle of Chickasaw Bayou, in December, 1862, to the surrender of the large rebel garrison to Major-General Grant, on the 4th of July, 1863. With Gen. Sherman, it was in the expedition that immediately followed against Jackson. Under Gen. Banks, it assisted in his second advance into the Téche country, the "Eden of Louisiana;" formed a part of the expedition that occupied the coast of Texas; and participated in the unfortunate Red River campaign in western Louisiana.

We have traveled by railroad 1,285 miles, by steamboat 3,916 miles, by steamship 1,200 miles, and on foot 1,621 miles. No accident occurred to any one while traveling on the water or by cars. While on the Gulf of Mexico, in November last, off the coast of Texas, in latitude 27°, several men had their feet frozen during the prevalence of a severe *norther*.

The total number of deaths from all causes, as far as ascertained, is 251. There were killed in battle and died of their wounds, 2 officers and 60 men. There was one death from suicide, and one from accidental shooting. Two men were drowned—one while bathing in the Mississippi, at Vicksburg, the other while returning from general hospital, at New Orleans, to rejoin the regiment at Morganza.

There were 185 deaths from disease, of which 47 occurred with the regiment. The others were in general hospitals, on hospital or other transports, at home on furlough, or in rebel prisons.

The number of wounded who recovered was 188.

The largest per cent. of sickness at any one time, occurred while the regiment was in barracks at Camp Dennison, in December, 1861. The most fatal disease was typho-malarial or camp fever. The most prevalent disease was diarrhœa. There were 2 cases of small-pox and 5 of varioloid, and no deaths. Of

measles there were 52 cases and 2 deaths. There were 3 cases of typhoid pneumonia, all of which proved fatal. Two died from diphtheria.

The greatest mortality in any one month was in April, 1862, at Cumberland Ford, Kentucky, when there were 8 deaths, which were as follows: 4 from typhoid-malarial fever, 2 from typhoid pneumonia, 1 from congestive measles, and 1 from hospital gangrene.

On surgeon's certificate of disability, 186 were discharged, and 38 were transferred to the Veteran Reserve Corps—15 of whom were directly from the regiment.

We have had four Assistant Surgeons. The first, Dr. B. S. Chase, resigned, to take the position of Surgeon in one of the first colored regiments that was organized in Mississippi; the next was dismissed the service by order of the President; the third resigned on account of chronic diarrhœa contracted during a brief service in western Louisiana; and the fourth, who joined the regiment in August last, is now at officers' hospital, in Natchez, Miss., dangerously ill of typhoid fever.

While acknowledging their prudent counsels, it gives me the highest pleasure to record the cheerful, ready, and constant acquiescence and vigilant coöperation of the respective commanding officers of the Sixteenth Regiment in faithfully carrying out in all practicable situations, the suggestions and recommendations of the medical officers on the important subjects of hygiene and sanitary police.

The number of officers and men to be now mustered out is 477.

I have the honor to be

Your most obedient servant,

B. B. BRASHEAR,

Surgeon 16th Regt. O. V. I.

List of Casualties in the 76th Regiment of Ohio Volunteer Infantry, from May 1st to September 8th, 1864.

	Name.	Rank.	Comp.	Action.	Date.	Nature of Wound.
1	Norman H. Stiffa	1st Lt.	K.	Near Atlanta	July 22	Killed.
1	John Patton	Corporal	H	Resaca, Ga.	May 14	"
2	Michael Griffin	Private	E.	do	do 15	"
3	George Kumpf	do	G.	Dallas, Ga.	do 28	"
4	Thomas Young	do	B.	do	do ..	"
5	Cyrus Crane	do	K.	do	do ..	"
6	William Willey	do	A.	Kenesaw Mt., Ga.	June 17	"
7	Silas A. Drake	do	"	do	do 16	"
8	William Rhiel	Corporal	K.	do	do 24	"
9	William Little	Private	A.	do	do 28	"
10	Jacob Schach	do	E.	Near Atlanta	July 22	"
11	Joseph Bergold	Corporal	I.	do	do ..	"
12	Nathan Atwood	Private	A.	do	Aug. 10	"
13	George F. Mast	do	F.	do	do 12	"
14	Thomas Dunn	do	A.	Near Jonesboro, Ga.	do 31	"
15	R. W. Henthorn	Sergeant	G.	do	do ..	"
16	Sylvester Redmon	Private	A.	do	Sept. 1	"
1	R. W. Burt	Captain	H	Resaca, Ga.	May 14	Face and mouth, severe.
2	Freeman Morrison	do	F.	do	do ..	Genitals and thigh, very severe.
3	Miles Arnold	1st Lt	C.	Near Atlanta, Ga	July 22	Left lung, right side, and right shoulder.
4	R. B. Williamson	2d Lt.	A.	Kenesaw Mt.	June 13	Contusion of arm, slight.
1	William Mottice	Private	K.	Resaca, Ga.	May 13	Gun shot, fracture of left index finger.
2	Godfrey Myers	Corporal	I.	do	do ..	Left shoulder, slight.
3	James Kibler	Private	C.	do	do ..	Left arm, resection of four inches of humerus.
4	Marshall Spencer	do	A.	do	do 14	Flesh wound of right thigh.

5	P. W. Evans	Sergeant	G.	do	do	Contused wound of right leg, shell.
6	John Maloney	Private	B.	do	do	Right arm, upper third, flesh wound.
7	O. M. Hatch	Corporal	"	do	do	Right leg, tibia fractured.
8	Alcinus Richardson	Sergeant	F.	do	do	Left eye destroyed.
9	Samuel Eakin	Private	"	do	do	Flesh wound of patis, severe.
10	William Held	Sergeant	K	do	do	Neck, severe.
11	William Wilcox	Private	H	do	do	Scalp, slight.
12	Wallace Kinkade	do	"	do	do	Upper lip, slight.
13	Reuben Burchfield	do	I.	do	do	Slight contusion of right shoulder, fracture of bones.
14	Daniel V. Clark	do	"	do	do	Very severe laceration of face by shell.
15	Jacob Leffen	do	"	do	do	Fracture of left inferior maxillary, conical ball.
16	John Haverstock	do	"	do	do	Slight wound of forehead.
17	John Young	do	"	do	do	Left arm, severe, shell.
18	Leonard Cook	do	C.	do	do	Scalp, slight.
19	Stephen Clayton	do	B.	do	do 15	Right cheek and shoulder, severe.
20	Solomon Dustman	Sergeant	K.	do	do	Left shoulder, severe.
21	Timothy Albaugh	Private	H	do	do	Left hip, ball remaining, severe.
22	John Harmon	do	I.	do	do	Contused right arm, slight.
23	John S. Grant	Corporal	K.	Dallas, Ga.	do 25	Contused left hip, severe.
24	Andrew Jones	Private	D.	do	do 28	Slight.
25	Edward Cross	Corporal	"	do	do 29	Slight.
26	Henry Smith	Private	H	do	do 31	Flesh wound of thigh, near knee.
27	William J. Prior	do	A.	Kenesaw Mt., Ga.	June 16	Slight, shell.
28	John S. Cummings	do	B.	do	do 18	Compound fracture of left leg, amputated at upper third.
29	James Devoll	do	D.	do	do 17	Conical ball, entering left mastoid process, exit right eye.
30	George Carroll	do	B.	do	do 18	Slight, shell.
31	Burton Donnahue	do	"	do	do	Slight, shell.
32	George Spellman	do	D.	do	do	Severe, shell, face and hands.
33	James Clunk	do	F.	do	do	Compound fracture right leg, amputated at lower third.
34	Samuel B. Wireman	do	I.	do	do 16	Compound frac. left forearm, amputated at lower third.
35	James McGraw	Sergeant	H	do	do 27	Gun shot fracture, fibula of left leg, severe.
36	Marvin Buxton	Private	B.	do	do	Slight.
37	Abraham Burnside	do	"	do	do	Slight.
38	Caton Hill	do	C.	do	do 28	Flesh wound, left thigh, lower third, severe.
39	Rufus W. Henthorn	1st Sergt	G.	do	do 29	Slight.

List of Casualties in the 76th Regiment Ohio Volunteer Infantry—Continued.

	Name.	Rank.	Comp.	Action.	Date.	Nature of Wound.
40	J. W. Johnson	Private	B.	Chattahoochee River.	July 12	Contused wound of abdomen, severe.
41	William Chicken	.... do	A.	Near Atlanta, Ga...	.. do 22	Mortal, through abdomen.
42	James M. Anderson	.... do	"	..... do	.. do ..	Through left arm, severe.
43	William Murray	.... do	"	..... do	.. do ..	Scalp, slight.
44	David Mossholder	.... do	"	..... do	.. do .	Through left hand, severe.
45	Frank D. French	Sergeant...	B.	..... do	.. do ..	Left hip, severe.
46	Robert Stewart	Private....	"	..... do	.. do ..	Contusion of chest.
47	Bradford Ingle	.... do	"	..... do	.. do ..	Contusion of left breast.
48	Albert Selby	.... do	"	..... do	.. do ..	Slight.
49	Job Benjamin	.... do	C	..... do	.. do ..	Flesh wound of forehead, slight.
50	Lawrence Schweninger	Corporal...	E.	..... do	.. do ..	Flesh wound of right shoulder, severe.
51	Leander Jennings	.... do	G.	..... do	.. do ..	Right leg, severe.
52	Thomas Hancock	Private....	"	..... do	.. do ..	Slight.
53	David Bowman	.... do ...	"	..... do	.. do ..	Slight.
54	William Tromp	.... do	I.	..... do	.. do ..	Right shoulder, fracture of head of humerus.
55	Carrollton Toman	.... do	"	..... do	.. do ..	Left hip, severe, shell.
56	William Erwine	.... do	B.	..... do	.. do 28	Slight.
57	Henry Miller	.... do	E.	..... do	.. do ..	Finger amputated, shot himself.
58	George W. Brannan	Corporal...	F.	Ezra Chapel	.. do ..	Scalp, severe.
59	Edward Kerns	Private....	"	..... do	.. do ..	Slight.
60	Jackson Moore	Corporal...	"	..... do	.. do ..	Slight.
61	Marcus Mathews	Private....	H	..... do	.. do ..	Slight.
62	John Walker	Sergeant...	I.	..... do	.. do ..	Slight.
63	Josiah Spears	Private....	D.	Near Atlanta.....	Aug. 14	Left hand, amputated three fingers.
64	Edward Swiney	.... do	"	..... do	.. do ..	Face, slight.
5	George Debee	.... do	F.	..... do	.. do 12	Through the neck, near carotid and subclavian arteries.
66	Daniel Heckerd	.... do	G.	..... do	.. do 16	Flesh wound of left arm.
67	Thomas Chuks	.... do	A.	..... do	.. do 18	Shoulder, slight.

68	John Maloney	.... do	B.	..... do	.. do	19	Head, slight.
69	George Ruttoistine	.... do	K.	..... do	.. do	..	Mortal, right arm and right lung.
70	George Buolinger	... do	I	..... do	.. do	22	Left hand—died on table from chloroform.
71	J. Phillippi	.... do	B.	..... do	.. do	23	Fracture of right ulna, resection.
72	Jacob Spuler	.... do	I.	..... do	.. do	24	Contusion right shoulder.
73	John T. Moore	Sergeant...	A.	Near Jonesboro.....	.. do	31	Severe, right shoulder, shell.
74	Wesley Van Winkle	Private....	"	..... do	.. do	..	Slight, side, shell.
75	George Carroll	.... do	B.	..... do	.. do	..	Slight, foot.
76	W. H. Krear	Sergeant...	I.	..... do	.. do	..	Mortal, left lung.
77	John F. Belt	Corporal...	K.	..... do	.. do	..	Left cheek, fracturing superior maxillary, conical ball.
78	Jacob Sebold	Private....	"	..... do	.. do	..	Contusion right thigh, slight.
79	John Walker	Sergeant...	I	..... do	.. do	..	Foot, slight.
80	John Gardner	Private...	"	..... do	Sept.	1	Left arm, severe.
81	Henry Bash	Sergeant...	C.	..... do	.. do	1	Left leg, flesh wound.
82	Charlas Shatzel	Private....	I	..... do	.. do	..	Left hand, slight.
83	Alfred Meal	Sergeant...	H	..... do	.. do	2	Left leg, very severe.
84	Emmet Stroms	.... do	I.	..... do	.. do	4	Slight, knee.
85	George B. Jones	Private....	D.	..... do	.. do	2	Three fingers injured, shot himself.
86	Philip Batty	Sergeant...	B	..... do	.. do	4	Left thigh, artery severed, mortal.
87	Thomas Ruckman	Private....	"	..... do	.. do	..	Left thigh, severe.
88	Godfrey Maier	Corporal...	I	..... do	.. do	4	Thigh, slight.
89	Otto Uhlendorff	Sergeant...	"	..... do	.. do	..	Hip, slight.
90	Johnson Haughey	Color Corp'l	D.	..... do	.. do	5	Left thigh, severe.

KILLED.

Commissioned Officers	1
Enlisted Men	16
Total killed	17

WOUNDED.

Commissioned Officers	4
Enlisted Men	90
Total wounded	94
Total killed and wounded	111

American and Foreign Intelligence.

On Malingering, especially in regard to Simulation of Diseases of the Nervous System. By Wm. W. Keen, M. D., S. Weir Mitchell, M. D., and Geo. R. Morehouse, M. D., Acting Assistant Surgeons U. S. A. In charge of the U. S. A. Wards for Injuries and Diseases of the Nervous System, Turner's Lane Hospital, Phila.

In the old regular army, malingering was better understood by the men, and relatively, perhaps, more often practised than it is in our present army, although we suspect that this is less and less true in each succeeding year of drafts and of warfare. The older soldiers are fast learning deceit, and, if we be not mistaken, the attempts to malinger are now much more frequent, and far more clever, than they were two years ago. As yet, however, such cases as mentioned by Mr. Guthrie, of a soldier's swallowing a cork full of pins to produce hæmoptysis, of which he died, the carotid having been wounded; or, as has been often seen in the British service, of artificial ophthalmia, produced by the use of corrosive sublimate to such an extent that the leeches afterwards used were poisoned, and died, or, as the matchless ingenuity of the French conscripts has devised, of imitating polypus of the nose, by introducing the testes of cocks and the kidneys of hares, would be unlikely to occur in our service. Indeed, our soldiers rarely produce diseases or aggravate them; but one case of purposely irritated ulcer has been seen by us, and but very few more have come to our knowledge. The great majority of malingerers consists rather of men who exaggerate real maladies of trifling character, or who feign disease outright. Of the two classes, the first is the larger. The real depletion of our ranks is not so much by feigned epilepsies, paralysis, and the like—we speak now of our own experience—as by these cases of disease, once severe, or always slight, to which men add invented symtoms, or continue to assert the existence of those which have passed away. The stimulous of large bounties has increased the number of these deceivers. Many have concealed symptoms to enter the service, and, when enlisted, have exposed them anew, with every exaggeration of statement, in order that they might be discharged, so as again to re-enter with a second bounty. Others, among substitutes especially, have been content if they could hoodwink the doctors far enough to secure for themselves the ease of hospital wards, and security from picket duty, and the bivouac.

Certain questions of an ethical nature present themselves in many cases of malingering. Thus, for instance, let us suppose the case of a man, as to whom all our means of information have been used. We still feel pretty confident that he is malingering; we can not in any way become sure. He has no obvious disease. What is the surgeon's duty here? We, ourselves, return such cases to duty, giving the government, rather than the man himself, the benefit of the doubt. If he be really a well man, no harm is thus done. If he be suffering from diseases which we have failed to detect, he is pretty sure to find his way into a hospital again.

It may be objected that great injury may thus be done the unfortunate victims. But, in the first place, these cases are almost invariably chronic, and, therefore, even if genuine, could scarcely be irreparably injured by a simple journey, and an attempt at duty. And, in the second, as Hennen observes, "it is rarely that diseases of this description exist any length of time without obviously injuring the patient's general health, or his external appearance." Hence, in such dubious cases, the amount of disease actually existing must be ordinarily very minute, or the question could scarcely arise, "Is there any disease?" These remarks are based, however, on the supposition that the surgeon has faithfully used all the means of diagnosis at his command; that his physical exploration has been a careful one; that his inspection and examination have not been limited to the face, coat, pants and pulse, but have been minute and bodily, especially so of the region implicated; that the history and symptoms have been accurately noted; that chemistry and the microscope have divulged nothing wrong in the urine, &c.; that the special tests by ether, by galvanism, by the ophthalmoscope, the ear speculum, &c., have all been employed in vain; above all, that the doctor's eyes, ears and brains have been active and observant. In the *Cyclop. of Prac. Med.*, ii. 150, are given two sad cases as cautions. In one the patient complained of pain only, and finally died. His discharge was for many years refused him by Fodere, on the ground of the unreality of his disease; in the other, an English naval surgeon compelled a suspected malingerer, even by flogging, to lift and swing an eighteen pound weight with his arm, despite the most earnest entreaties and asseverations of agonizing pain in the shoulder, from which, soon after, he evacuated two pounds of purulent matter. Had the authors of this cruelty carefully adhered to our rules, it seems impossible that they could have been so grossly mistaken, for it is incredible that life should be lost, or a part so deeply involved, without constitutional or local troubles of such a nature that *some* disease, if not the *exact* disease, must have been recognized as existing. The authors who quote these cases mention the latter, at least, as an instance "in which ignorance was as conspicuous as barbarity."

But what is to be done with cases of undoubted and obstinate malingerers; with men whose endurance and tenacity of purpose

would be heroic, were the object in view a righteous one? Experienced army surgeons tell us that it is better, on the whole, to discharge such men, and under the old army rule this would, no doubt, be the best plan, for such men are, as a rule, useless as soldiers, and a dishonorable discharge brands the criminal with shame and saves the government from expense. But, under present circumstances, the man would merely change his residence, and re-enlist with a new bounty, to repeat again the same easy means of creating an income. If, on the other hand, we return such men to duty ruthlessly, they only escape from one surgeon to find another more easy and more credulous, while in most cases they get a ready discharge at the convalescent camps, and return home to repeat the same thieving and lying process.

To court-martial these men is difficult, since in many a case in which it is morally certain that the man is a malingerer, it is yet impossible to swear to it, and even when it can be sworn to, it is often difficult to advance such evidence as will convince a court of non-professional men. When it is possible to do so, charges should by all means be preferred, and proper punishment secured; but, unfortunately, this measure is usually avoided, even in the most palpable cases, whether from listlessness or ignorance, it is impossible to say. But in cases which from any cause cannot be brought to trial, two courses lie open to us. First, to return the manlingerer to duty, with a note upon his descriptive list stating the fact of his malingering. This is fully justified both by the ordinary practice of commanding officers, and by private but official authorization to ourselves. Such a note would always follow up a malingerer, and almost inevitably prevent the attainment of his darling object, by branding him to every officer under whose control he comes. It has succeeded admirably in the cases in which of late we have adopted it. Second, to retain him in the hospital or regiment, and compel him constantly to do the hardest and filthiest duty on police. If it could be authorized in a hospital or military district, to form a "malingerer's brigade," with a peculiar dress, doing just such work as we have mentioned, until they were willing to return to duty as honest men, the disgrace and hard work incident to such a position, it is believed, would be of the greatest advantage, and would rid the service of much of the malingering now existing. Men malinger in order to avoid work and obtain a discharge, and so long as one man succeeds in doing either, so long will ten others continue to imitate him. But if, thereby, they should only subject themselves to harder work than ever, add dishonor to hard labor, and lose all hope of a discharge, malingerers would be rarely seen. But surgeons should be careful about entering such remark on a descriptive list, or in entailing disgrace upon men by accusing them of feigning, and punishing them for it. Every means should be adopted to ascertain *positively* the reality of the deception. It is unfortunately the fact, that one rogue throws a shadow of suspicion on a dozen honest men.

Our dexterity in detecting deception must not become so acute that in every "back case" we shall see a malingerer. We remember one man under our own care, with whom we adopted the severest measures, even to the actual cautery, in the belief of his malingering, and who, in undergoing a subsequent physical examination for a promotion, where he would appear to the best advantage, failed to pass on account of the very defect which we had believed simulated. Such cases have made us wary, and we name them as warnings to others, lest in endeavoring to do justice to the government, we be led unwittingly, to do injustice to the men.

Malingering is more especially rife in general hospitals, and it is easy to see why. Men are there separated from the medical officers who knew all about them when they entered the service, who have been with them during all their campaigns, and are familiar with their general every-day character. Their company commanders are, to a great extent, inaccessible, and many an apocryphal fall or fever, and many an imaginary shell or shot wound, which inflicts the saddest injuries on the hapless sufferers, or perils their health and the lives, would vanish could they be confronted with their captains.

Here, too, it is proper to notice a class of men who escape duty by stating that their disability existed before they entered the service. They often very coolly allege that the surgeon was not sharp enough to catch them, and so they got the bounty and the government a bad soldier. Usually a losing bargain for the government. Even if, in such cases, the disease really existed, unless the disability be complete, they should unflinchingly be made to do duty either in hospital, the Veteran Reserve Corps, or else in the field. They voluntarily enlisted, and as the government has performed its part of the agreement in giving them bounty, clothing, pay and rations, let them be made to perform their part, to do duty despite the disease. While writing this, we have had in our wards one man with epilepsy, and another with frontal neuralgia and severe headache. The epileptic attacks only occurred monthly. Both of them asserted that their diseases existed long before enlistment, and that they knew it. Without inquiring into the reality of the disease, we immediately returned them to duty, with a note on the descriptive list, stating the facts *as they* gave them, conceiving it to have been their agreement to do duty, disease and all. Besides the special test in particular diseases hereafter mentioned, there are general modes of discovering malingerers, which are of the greatest value, and which, although they are not new, we have yet reason to fear are not often carried out in practice.

One of the most important of these is the establishment of a system of espionage for men who are lame, paralyzed, choreic, &c., by which they may be observed inside and especially outside of the hospital inclosure when they least suspect it, to see how they act when off their guard, to hear what they say when they are

drunk, and to report to the surgeon, who cannot himself study them under these circumstances. This requires the best and most reliable men one can command, and it must be entered upon "con amore." Not to awaken suspicion, the detective should be on some nominal duty, be allowed a pass at all hours, know when the men have passes, and zealously follow them everywhere unseen. Nor is this a degrading duty, as some would imagine. It is due to justice that the scoundrels should be detected, and it is no less due to an honest man who has unluckily fallen under suspicion, that he should be himself vindicated by the negative proof and by persistent and careful scrutiny.

Besides this, it is important to study the character of a suspected malingerer, as the general deportment of the man in reference to other subjects than his disease may give an approximate estimate of the truth or falsity of his statements. "Falsus in uno, falsus in omnibus," is no less good in the medical jury box than in the legal, and the tacit cross-questioning of observation may educe circumstantial evidence sometimes quite sufficient to warrant a verdict of "guilty," and a sentence of "field duty."

It must not be forgotten that some men carry on the double game of a pretended disease, and an assumed character. Such men are doubly secured if they be adebts, but doubly exposed if novices. Every means that the science or the ingenuity of the surgeon can command is needed, and should be employed, and even then it is sometimes only by a happy chance that they are discovered.

The severer remedies, both medicinal and mental, in most cases, so far as we know, have been too much laid aside. Oftentimes they will avail nothing; tact, rather than force, will win the day, and many a man will suffer dry galvanism, the actual cautery, setons and blisters, and yet persist in his deceptions, whom a simple artifice will trip. But there are other men of different mould who cannot endure bodily pains, and who will yield to heroic remedies when all others have failed.

Anæsthetics, again, are of the utmost value, and often may be summoned as a reserve to decide the fortunes of a doubtful day. Ether has been often used by surgeons to detect malingering, but we are not aware that it has been very widely used, except in cases of aphonia and pretended dumbness, stricture, enlarged belly, and anchylosis of joints, and contractions of muscles. In all these maladies we have either used it ourselves, or have known of its use by others. But its usefulness should not stop here. It is equally valuable in cases of deafness, blindness, rheumatism, paralysis, and epilepsy, as we shall show in considering each of these diseases separately.

But above all, says Bartholow, the surgeon will find it necessary to use his own senses, his habits of observation, and that peculiar tact in detecting impostors, which, whilst it seems an instinct with some, may be acquired by all who are willing to culti-

vate it. This tact is shown in a thousand ways. It seems often almost intuitive, and fixes instantly upon a malingerer for no other than "a woman's reason." It devises unusual means for unusual cases, and adapts old means anew. No better school exists for its development than a general military hospital. Many men may, by this tact, be made to pledge themselves to contradictory symptoms. We have seen a man led to state when his right face was paralyzed, that the mouth was drawn very strongly *towards* the right side. Some, by having their attention diverted by synchronous movements of other parts, will forget their old complaints, and betray themselves, as we have seen done by a man whose left deltoid was "paralyzed," and who held the arm out at full length for one decisive moment, when our supporting hand was suddenly but furtively removed, at the time he was rising to his feet.

Anchylosis.—We have seen but one case in which this was feigned; ether in five minutes discovered the cheat. Genuine anchylosis can be only either, 1, bony or true anchylosis; 2, false anchylosis by deformity of bones, either congenital or acquired by fracture, &c.; 3, false anchylosis, by bands of lymph; 4, false anchylosis, by contractions of muscles. The first never could be feigned, from its perfect immobility. In the second and third, the sudden arrest of motion on arriving at its limits, is very marked, and the giving away of the bands of lymph as the motion progressed further, would be in the third, diagnostic. It is only the fourth that could be well feigned, and especially by a soldier who had really received a wound of the neighboring muscles or nerves. In these cases, as Dr. Bartholow observes, in some excellent remarks on the subject (*Manual of Instruction for Enlisted and Discharged Soldiers*, pp. 143–4), the endurance of the malingerer is most extraordinary * * * in maintaining a most uncomfortable position of a limb for many months. He might, indeed, have said "years," for many such cases are reported. In one instance (*Cyclop. of Prac. Med.*, ii. p. 138), a conscript kept his right knee bent so as never to touch his foot to the ground for seven years. He escaped detection all this time, and was only employed on light duty; but when discharged observed, "I will try to put down my leg, it may be of use to me now," and walked off with a firm step, leaving his cane as a legacy to his doctor. Need we, in view of such cases, be surprised at the malingering for only *months* in our army?

In the cases of true contraction, the arrest of motion at the instant of putting the muscles on the stretch, and the absence of voluntary resistance, are marked symptoms which a malingerer cannot feign, and in case there be any doubt, etherization will instantly solve the question. We need not resort to all the varied and clumsy means of diagnosis heretofore employed, as mentioned at length by Beck (*Med. Jurisp.*, 1, 77), Etherize the man, and in five minutes detection is a certainty, if he be a malingerer. As

an example of a typical case of feigned anchylosis, well treated and well related, we refer the reader to the case reported by Dewitt C. Peters, Assistant Surgeon, U. S. A., in the *American Med. Times* for March 5, 1864. Another which well illustrates both the perseverance of the malingerer and the complete deception of the surgeon (no less a person than Sir Geo. Ballingall himself), and the excellence and the value of anæsthetics is related in *Ballingall's Military Surgery*, p. 614. Excision of the elbow was about to be performed for anchylosed elbow, which was discovered to be perfectly flexible when the man was chloroformed. It is also to be borne in mind, that a man may cause false anchylosis by long continued voluntary disuse of a part. Such a man is no less a malingerer, but he declares his own sentence, and nature carries it out fearfully and justly.

Blindness.—This has been often, we doubt not, feigned, especially in those cases in which slight but real, and sometimes visible defects existed, which would often deceive surgeons inexperienced in diseases of the eye, and occasionally masters in the art, who had not the requisite instruments for more minute inspection.

It has not occurred to us to have any such cases under our care since an eye and ear ward has been established at the Satterlee Hospital, West Philadelphia, under the able care of Acting Assistant Surgeon E. Dyer. We have, however, one means of detection to suggest, which, so far as we are aware, has not been used, but which could readily be employed even in the field, and might prove of the greatest value. Let the sound eye be covered by adhesive plaster, and the man *etherized*, and when recovering from the anæsthesia, when he is unaware, as yet, of his condition, let his sight be tested by the simplest measures, such as offering him some water (some whisky is better), or your hand, for the affection developed by ether may often be turned to advantage.

We desire also to add one case, kindly furnished us by Dr. Dyer, which is comparatively novel. Its test possesses the great advantage of mathematical certainty. It is a well know fact in optics that a prism, by refraction, presents the object observed at an elevation different from the true one.

One of Dr. Dyer's patients complained of entire blindness in the right eye. An examination by the eye and the opthalmoscope revealed no lesion, and he was then tested as follows: A prism being held before the right eye, the left eye being open, a pen was held up and the patient asked how many he saw. "Two." What is their relative position? "One is higher than the other." Sadly accurate. His perfect vision was proved, since he saw the pen with the left eye at the real elevation, and with the right eye at an imaginary one. The experiment was repeated with another prism of a different angle, and the result verified, the distance between the two pens only being altered. The prism being removed, the man saw that but one pen had been held up, and very obligingly played cards all the afternoon with his left eye entirely closed by

a bandage. The army of the Potomac speedily received a reinforcement of one.

Lameness is a frequently feigned disease, but is very various in its alleged cause. It is often ascribed to rheumatism, to anchylosis, to weak back, to paralysis, to œdema or vericose veins of the leg, to weakness of some point or of the entire limb. Of these we shall only notice here the last three, the others being considered under different heads. The most difficult cases of all are those arising from an asserted weak ankle, or weak knee. Almost every one has himself felt, after a sprain, a certain amount of weakness, which would have incapacitated him from marching, or even lamed him considerably, and which yet could not be detected by the most expert physician. When, therefore, we are puzzled by such a case, as we often are, and can discover no lesion after the most careful examination, we should seek collateral evidence, such as the man's character, his willingness to work, the general tenor of his story of the origin of his malady, his conduct and gait away from the hospital, and when drunk, if it so be that he indulges thus. A detective should instantly be put on his track, and his every movement watched. He should also be etherized and skilfully baited to walk about and display his powers while thus intoxicated. Even then, after the most patient observation, we are often in doubt, and in such cases we usually act as we would in all puzzling cases of supposed pain. We thus do less injustice, we are sure, than by retaining such men for months, for it must be remembered that while, by returning them to duty, we may wrong, say one man in ten, who is a real case, yet, if we follow the opposite course, we wrong the government in *nine* cases. Besides this, we set a premium on malingering, for however well a man may keep his secret while it is in progress, when his course is run in the hospital or in the service, he recounts his victories over the doctor as well as those over the enemy. We remember one case occurring in Washington, in which the man in whom the utmost care could discover, during some weeks, no source of lameness, was ordered to duty. He begged first for two crutches, then for one, then for a cane, meanwhile barely supporting himself againt the wall, but finding that nothing would be given him, he at last, with the most irresistible jollity, slung his knapsack, and jauntily stepped along the road amid the shouts of the men, that "old Chickahominy," as they called him, had been caught and cured.

We are reminded by a friend (Dr. Da Costa) that he has often detected feigned lameness by observing whether the cane is put down before the lame foot, or with it, or after it. A really lame man wants the *support* of a cane, and of course never will use the leg first and the cane *last*. He will always make the cane precede or accompany the foot. Where the lameness arises from varicose veins, their severity must be the test, not always when on the border line, an easy matter to decide. In cases of œdema the

cause of this condition must be carefully sought. We only know by report, of its having been caused by ligatures, for we have seen no such cases. One cause, illustrated in the subjoined case, we find has been also noted by Bartholow (*op. cit.*, pp. 145–7), who says that he had at one time ten men in hospital with lameness from œdema, in whom the only probable cause was compression of the popliteal vein by crossing the legs. This we would propose to cure by keeping the popliteal space *sore*, either by blisters, croton oil, &c. Or, perhaps, what would be better, lest the means of cure be alleged as an aggravation of the disease, to blister the well knee and thigh anteriorly. The following case we detail at length as a remarkable illustration of feigned lameness, mental debility, deafness and spermatorrhœa, kept up with the utmost persistency for months, but finally and fully detected.

CASE.—*Feigned Deafness; Spermatorrhœa; Lameness.*—W. C., private, Co. I, 61st N. Y., æt. 35, about the time of the first battle of Fredericksburg, Dec. 13, 1862, states that he was sick with pain in the bones, headache, general debility, &c., when, after some treatment, he was furloughed. In May he was sent to Armory Square Hospital, Washington, and has been in hospital ever since. He was admitted to Christian St. Hospital, June 30th, 1863. He then complained of almost total deafness, the cause of which was unassignable, severe spermatorrhœa, general loss of "mental power," and lameness and swelling of the right leg, with severe pain in the back, such that he was unable to get out of bed. We minutely examined into the history of the trouble in the leg, at the same time gradually lowering the voice with each succeeding question. He was intently interested in impressing us with the horrible state of his limb, and did not notice the stratagem until we were speaking so low that the surgeons about us had ceased to hear our words distinctly. His "mental power," of which he said so much, was unequal to this trial. We learned, also, that when admitted his hearing was perfectly good.

We next examined the validity of his spermatorrhœa. Having had clean sheets, shirts, and drawers furnished him, with care, on the ordinary day for such a change, and, therefore, without awakening his suspicions, we questioned him the following morning as to the spermotorrhœa, and he alleged several emissions the preceding night. Unfortunately for his veracity, we turned down the clothes, and the sheets, shirt and drawers exhibited no trace of such a misfortune. Subsequently he exhibited to us, with some triumph, indubitable evidences, such as we had sought, but the ready explanation of a manufactured article was too obvious for even his "mental power" to withstand.

We were now thoroughly convinced that all his pretensions were false, but the difficulty was to overcome his obstinate *inertia*. With unyielding pertinacity he clung to his last hope. His leg was now, by a curious contradiction, his only support. Driven from every other refuge, he posted himself resolutely in this, and

disputed every inch. Were crutches and canes taken away, he simply interposed the stumbling-block of absolute rest, and threatened to conquer by "masterly inactivity." Grant him the aids to locomotion, and for weeks he hobbled around on two crutches, with his leg slung in a broad and showy saddle-girth, bemoaning his enfeebled power of ratiocination, and requesting, now and then, in a tone of quiet assumption, some new privilege, such as a reporting pass, or be allowed to go and come without any pass whatever, on the ground that he had formerly been an officer, &c. Indeed, he assumed a manner far above those whom he called "the men," rarely associated with them, claimed the privileges due him as a former medical student, talked metaphysics, chess, and politics, and had so dainty a stomach that he was constantly requ st ing at least the small favor of an early pass, to get some breakfast as he had been unable to eat the plebian and coarse hospital ration.

We soon found, by close observation of his leg, that there was never a ligature around the thigh, as we had suspected, but that he kept up the œdema by constantly sitting with his leg resting on his crutch, which was placed under the popliteal space. Soon after, he completed his race. One bright, moonlight night, the steward heard an unusual noise just after midnight, on his roof, and, on going to the window, he saw our lame man drop from the eaves, outside the hospital, and make a nimble escape without crutches, after having climed over a fourteen feet pavilion. Undoubtedly he got in the same way, for the next morning he was in the ward, and stoutly persisted that he had not been out. Convinced by the concurrent testimony of two witnesses, and the con dition of his clothing, we ordered that if he did not walk out to his meals, he should neither eat nor drink. For three entire days not a mouthful passed his lips, and even then, with a resolution that would have won him fame in any honorable course, he only went in the most helpless manner that could well be imagined. After two days, we sent him to the hospital then designated for malingerers, where he so successfully imposed upon a new surgeon in charge, that, against the remonstrances of the ward surgeon, and the antecedents of the man which we had carefully furnished, he was allowed the most unlimited privileges, until a peremptory order from the medical director sent him to "duty." How far he got may be imagined from the fact that our last intercourse with the scoundrel, three months afterwards, was to order him out of our hospital, which he visited as an able-bodied citizen, in a glossy black suit.

Deafness.—We have had a few cases of deafness under our care, of which but one, so far as we know, has been feigned. This case has been stated at length under the head of lameness.

Most of the cases of deafness, unless otherwise more gravely complicated, have been treated by Dr. Dyer. If feigned, they are usually detected by various ready expedients, such as in one of Dr. Dyer's cases, in which, after blindfolding the patient, he held a watch out and asked the man, in a low voice, if he could hear it. "No," was the answer, its categorical form dispelling any doubt that he was answering the *act* rather than the question. Or, as in our own case, when the man's leg was implicated as well as his ear, and while engaging his attention wholly in regard to the former, the voice was so lowered that one of us sitting near the interrogator, could scarcely hear, while the patient answered readily every question. The manner and voice of a deaf man are peculiar, and can hardly be simulated well. Bartholow (*op. cit.*, p. 108) characterizes his voice as "low toned," but our own observation leads us with Gavin (*Feigned and Fictitious Diseases* p. 49) to call it rough and loud, for the very good reason that the man is unaware how lowdly he does speak; this is only true, however, in case of marked deafness. He is more happy in his quotation from the *Cyclop. of Prac. Med.*, ii. p. 139), of "the natural but involuntary language of the countenance" as evidence of imposture. Ordronaux also describes aptly (*op. cit.*, p. 71) the interrogative attention of the really deaf as so different from the dull and stupid air assumed by the simulator, and calls attention to the evident fact, that perceiving the fall of a heavy body on the floor may be deceptive as to supposad simulation, since it may make itself known by the shock of its fall. Even very deaf persons, too, can often hear a steam whistle, a drum, or a bell.

In deafness, too, we have to suggest the employment of ether, apparently the best test in malingering in its protean forms.* If in the stage of semi-conscousness, when the man forgets his surroundings, and their necessities, he can hear, there can be no doubt as to the case. We should regard the test as conclusive. Of course, suspicion of malingering can only be entertained in case no real disease can be detected on the most careful and thorough examination of the ear by a speculum.

Diarrhœa and Dysentery.—These diseases are not very frequently feigned, so far as we can learn, probably because of their inconvenience. We have seen but two instances. We have mentioned them for the purpose of pointing out the only sure and ready means in case of suspicion. Place the patient under guard, and let each stool be separately observed by the surgeon, if possible, or by the steward, ward master, or other person. This method can never fail us, unless the man has real diarrhœa produced artificially, when the cause must be looked for and removed.

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* Recently, in our wards, ready detection was thus obtained in a case of well simulated deafness.

Of Voluntary Vomiting.—We have seen one case at Christian St. Hospital, and Dr. Bartholow has observed two instances. These cases are, we believe, unusual, and, owing to this very fact, are apt to escape, their true nature being scarcely suspected. In all such, the proper treatment is that which was adopted in the three already mentioned. If no loss of flesh nor constitutional disturbance result from the loss of food, nor any disease of the stomach sufficient to cause the phenomena, be noticed, let them be returned to duty, with the proper note on their descriptive list.

Spermatorrhœa.—Although scarcely any notice is taken of this disease in the books, we believe it to be far more frequently feigned than many others of greater prominence. It has been our fortune to meet with four cases of alleged spermatorrhœa, three of which were feigned. They gave reasonable accounts of themselves, deriving their information either from previous experience, or from some of the wretched publications of the day. We readily detected them by having their bed linen and shirts changed at the usual time, and inspecting them for a couple of weeks without the patient's knowledge. Notwithstanding their asseverations of repeated attacks, not a spot could be found. Sometimes, on the assertion of the first discharge, an immediate inspection of the bed-clothes and shirt has proved the falsehood of the man, much to his chagrin. Subsequent evidence in this direction is valueless, for very obvious reasons.

Pain is not a feigned disease, but is the most easily feigned symptom, the most difficult and often most apparently cruel to gainsay or deny, and, at the same time, the most available stronghold to which the malingerer can resort. "If a man positively affirms that he suffers great pain in some portion of the body, it seems to the popular mind absurd for a surgeon to affirm that he does not, and this idea has been acted upon till forbearance is exhausted." (*Woodward's Camp Diseases*, p. 326). That Dr. Woodward's criticism is essentially just, is the only reason we can offer for introducing the subject here, and not because we have anything new to suggest. The only general rule to be observed is, that *where no other evidence than a man's assertion of pain exists, he should be sent to his regiment.* But it must be understood that "no other evidence" is to be accurately determined, and that the rule has exceptions.

We have in our wards three cases of wounds of nerves, in which the only effect left is the neuralgic pain, but we keep them, and treat them, because we regard the seat of wound, the original lesion of motion and sensation, the frequency of just such neuralgic pain, and the men's good general character to be sufficient "other evidence." Yet in two cases of what we knew to be the most agonizing pain, with greater evidence than these, we have known a good surgeon to pronounce the men "humbugs," or, at least, "exaggerators." No symptom calls for such thorough, pa-

tient and discriminative examination, and such thoughtful, conscientious decision. While Fodere's case serves as a warning from blind severity on the one side, let the many flagrant deceptions successfully practised on surgeons keep us from too weak indulgence on the other.

Often the unexpected employment of a little artifice will suffice. We had one man who complained of constant pain in the hand, from a wound in the median nerve. The wound of the nerve was, at best, very doubtful, and his exaggerated shrinking, even when pointed at by the finger, led us to suspect him strongly. Pressure was excessively painful, and he would scarcely allow his hand to be looked at. Yet one day, on the plea of seeing how well he could use his hand, while examining minutely the movements of each phalanx of each finger, without his knowledge, we pressed heavily on every part of the hand, and he did not even wince.

No men are so apt to exaggerate and overact their part, nor any so apt to endeavor to insure belief by backing their assertions by repetition and affirmation, as those who feign simple pain. Such means are necessary to bolster doubtful assertions only.

Insanity.—Long treatises of the greatest value have been written upon the subject. But in our army they are rendered absolutely worthless, save in reference to drafted men, and in the Government Insane Asylum, since it is forbidden to discharge insane men. And any one who would feign insanity and submit to its restraints and associations to avoid work and obtain ease, must be in reality a monomaniac. The number of cases of insanity in our army is astonishing. The assistant surgeon at the insane asylum informed us that the average admissions there from the army alone were rather over one every day.

"*Back Cases*," as we familiarly termed them, are those in which the patients complain of "lame back," "weak back," "pain in the back," "kidney complaint," "rheumatism," &c. They occur by dozens in every great hospital. They are in most cases, we believe, real, but from this very fact are also frequently feigned; the more successfully from the obscurity of the symptoms and pathology of the disease, for we believe, with Dr. Cheyne, that the most exact and scientific knowledge is at once the most ready means of detection. It is not strange that in a large army, exposed constantly to the vicissitudes of a soldier's life, marching in rain and sunshine, sleeping without protection, building intrenchments with the spade and the axe, and exposed to all the accidents of the battle-field, an immense number of men should suffer from spinal meningitis, chronic or acute rheumatism, sprains from falls, blows, or carrying heavy loads, congestion and inflammation of the kidney, &c. Many of these cases improve under the appropriate treatment, as indicated by their history and symptoms, and some get worse and worse. But, then, a reserve of many more remain as they were, and it is here that the malingerers are found, for they will never get any worse, be it noted, than is necessary

for them to succeed. We can give no better description of them than that of Assistant Surgeon Woodward (*Camp Diseases of the Army*, pp. 324–5):

"These patients complain loudly of pain. They stoop in their gait and limp about by aid of sticks, but they appear well nourished, devour their full ration of food, and present none of the grave constitutional symptoms of the cachetic neuralgias we have considered. Nor are any of the symptoms of chronic rheumatism present. There is no deformity, swelling, stiffness or immobility of the joints. These patients are more apt to attribute their malady to a strain than the genuine cases, and tell frequently a pitiful story. The experienced surgeon will often detect them by this story alone; they whimper and even sob in an unmanly manner, which in itself alone should produce suspicion."

Here, then, the most careful scrutiny must be exercised. Every means of diagnosis must be employed. The history and symptoms must be obtained in detail, the body strictly examined, the urine analyzed, the constitutional condition studied, and the progress of the case carefully noted.

We well recall the case of a man now in our wards, who was transferred with a note on his medical descriptive list, stating that he was believed to be a malingerer. His urine was loaded with oxalates, and his febrile and weak condition in a moment assured us that he was a real sufferer. His subsequent history medically, and the most tender, careful and reliable nurse we ever had, fully confirmed our opinion. Yet we remember equally well another man, who deceived one of us completely, by his connected story and consistent symptoms, until his captain accused him, on the descriptive list, of cowardice, when he immediately deserted, by climbing over a fourteen feet fence, to avoid facing the charge in his company, whither he was to be sent.

These cases have enjoyed the unenviable and single notoriety of having been prohibited from being discharged, by order of the War Department, and with the best of reason. All authors are agreed that where the surgeon can discover no lesion after careful search, he may conclude that "in nineteen cases out of twenty * * no material disease exists" (Marshall), and of course fearlessly return the man to duty.

Often such cases *may be detected* by their mode of using a cane, as noted under lameness, by their discrepant and exaggerated histories, by the reputation they bear with their regiments, as ascertained from the descriptive lists, or from other men of their regiment, by their general character, the alleged want of effect of narcotics, and by espionage, both in and out of the ward. This last, in such cases, we regard as the most valuable means, and unfortunately the most neglected. In one case, at the Fort Schuyler General Hospital, a man "who had gone for many months in a semi-erect atitude, suddenly straightened himself and threw up

his arms to pull down the cape of his great coat, which a gust of wind wrapped about his head." Another, a lame man, who ran to catch a steamboat on the point of leaving, and the subjoined case, all illustrate its use. Our own case also shows the pertinacity and endurance of the man, and that the severe remedies which often relieve rheumatism, are not always calculated to make the malingerer yield.

CASE.—Patrick C., æt. 40, laborer, Irishman, was sent to us as a very bad back case. For four months he had hobbled around, a pitiable object, exciting the sympathy of many visitors, by heart-rending tales about his poor back.

We examined his urine and found, with some surprise, oxalate of lime in abundance. Having, however, several cases of oxaluria in the ward, we suspected him of theft or exchange, and, therefore, forced him to pass it the next day in the presence of the ward-master, when the oxaluria suddenly disappeared and never again returned. One day in December, however, he was discovered at some distance from the hospital walking erect, and with his crutches under his arm. Here was proof positive, so we took him aside, and told him quietly that he was a scoundrel. At this, his indignation knew no bounds. More solemn appeals to Heaven as to his truthfulness were never uttered. We offered to gradually let him get better, and thus save his reputation before the men, and then to send him to duty; but nothing would avail. He still persisted in his innocence. Warning him that a thorough "course of treatment" would be entered upon, such as would do him good if he were really ill, and thoroughly punish him if he were not, we left him. Crutches and canes were interdicted, and he was ordered to go to the table or go without food. The seton was the first means employed, and good care was taken to put two very large ones on each side of the spine, in the suffering "small of the back." Having pretty thoroughly irritated the parts, the tapes were removed (although the bad "humours" of his system seemed rather increased than diminished by them), and dry galvanism to the back was substituted. To apply this the part is thoroughly dried (by flour rubbed on it), and then dry metalic conductors or the metalic brushes are passed over the surface. This limits the electricity to the skin alone, and is the most painful of all the applications, which do not destroy tissue. At the close of a week he begged hard "to be let off that darned lightnin'." At this time we had begun to use the actual cautery, which, as the ward-master remarked, had "rather cleared the moral atmosphere of the ward." After earnest and repeated remonstrances, this means was employed in the present case. After three cauterizations he still held out, and when about to suffer a fourth, he became, one day, slightly intoxicated, threw away all aids to movement, and danced a jig to the amazement of the ward, and to his own future sorrow. He was at once put in the guard-house, where he gave

up any further attempts at deceit, and was sent to the field. We learned, in a month, that he had been discharged at Alexandria, where, as he said to a comrade, the surgeons were easier to cheat than at Christian St. Hospital.

Paralysis has been a common disease in our wards, and of course has been often feigned. In two cases which we discharged we were probably deceived, although, as to one of these, some doubt may exist. The other withstood every test we could apply, and was discharged, to become, soon after, a door-keeper at the Sanitary Fair, where we saw him in a state of sudden health and vigor.

Men who are placed in the same wards with numerous cases of any malady, have an opportunity to study symptoms, and of course to imitate them with the best chance of success. Of this we saw many instances. Besides the general methods of detection, special means are available in cases of feigned paralysis. If the history of the case be a complicated one, and notes have been taken at the first examination, it is sometimes useful at a later date, to oblige the man to restate his case in full, and to observe discrepancies. Where a wound exists, the patient would sometimes add those symptoms of nerve lesion which he had seen in other men, and in this case the anatomical relations of the wound became of moment. Galvanism was here, as in many forms of supposed palsy, of the utmost value, because, in severe nerve wounds, and in spinal lesions, the loss of electro-muscular properties is apt to follow in the muscles affected. In feigned anæsthesia, the precise limits of the loss of sensation should be noted, while the patient is blindfolded, to observe whether these boundaries are the same, and to see how they differ from day to day, and whether in wounds they correspond to the nerves supposed to be involved

One of the best tests, too, which has suggested itself to us, and which we have used, has been ether. Several other authors (S. Kane, *Am. Med. Times*, Feb. 27, 1864; Beck, *Jurisp.*, i. 47; Baudens, *Comptes Rendus*, March 8, 1864, &c.), we find have employed it or alluded to its advantages, but we are not aware that it has received the general attention and credit which it should have obtained. If the paralysis is alleged to be complete, and especially if it be from a wound in the neighborhood of a nerve, or is supposed to be the reflex effect of a distant wound, it is invaluable as a means of diagnosis, and should not be neglected. Tact also may be of the greatest service. We have again and again detected a man who complained of paralysis of some muscles, those of the shoulder, for instance, by extending the limb, and then suddenly removing the support when least expected, or when his attention was withdrawn from the limb and directed to some other act. For a moment the muscles would almost instinctively resist the force of gravity, and give unwilling but decisive proof of their power to sustain the weight of the arm. Or again, the limb may be quickly and unexpectedly thrown up, when the

motion will be resisted, or its fall prevented. By inducing consentaneous or alternate movements of well and paralyzed parts for pretended purposes, we may also often surprise a malingerer. And finally, by the employment of severe remedies, we may frequently subdue a deceiver.

The following cases illustrate, in detail, most of the above statements:

CASE.—F. W. W., private, Co. A, 121st New York, was admitted to Christian Street Hospital in June, 1863, with a gunshot wound of the left neck, on a level with the angle of the jaw, emerging near the spine. The ball evidently had injured no important nerves. He complained of stiffness and complete paralysis of the muscles of the neck, such that his head and neck were twisted to the left, and his chin pulled down, nor had he the power to use the muscles of the shoulder, especially the deltoid. The entire military history of the man was bad, and while with us grew worse and worse, till he deserted; but was, after two months, arrested and brought back. Meantime we had caught him moving his head about when he thought we were not observing him, and we finally brought him to using his neck as well as ever, by congratulating him on his gradual improvement.

But the left shoulder was incorrigible. For months (when he was in the hospital at all), he kept it to his side, not hanging loose and dangling, as a paralyzed arm does, but tightly to his body. The electric condition of the muscles was not altered, and as this was very remarkable, we detained him for some time till we could determine electrically in other men the state of muscles long voluntarily kept at rest, as on splints, for example. Soon after this we found that the electric condition of such a muscle, when not at all used, is very markedly altered, and we became sure that he used his arm out of our sight, and that neither was it injured directly nor by reflex action.

We then etherized him. He feigned admirably at first, the muscular relaxation of ether, and we thought him anæsthesiated without result. But suspecting the double game, we carried the ether still further, and had, in five minutes, the pleasure of leaving him yawning and stretching himself, the arms far above the shoulders, and every effort to move them *down* resisted by his deltoid. The movements were, of course, somewhat weaker than those of the other arm. He was sent to his regiment with a note on his descriptive list giving the facts as stated.

CASE.—Private B., Co. C, 12th Pa. Reserves, complained of palsy of the left side. Soon after his admission, we learned from a ward-master that our unfortunate cripple, who hobbled about with a cane, had become drunk at a ball, and was ejected, with difficulty, by five men. There was a little doubt as to these facts, but none remained after the following week. The men occasionally

were allowed to dance in the mess-room on Saturday evening, one of them fiddling, while an officer was present to prevent disorder. On one of these occasions the music was too much for B., who ended by dancing an astonishing hornpipe. The usual consequences followed. Return to duty—convalescent camp and discharge—for when one of these men reaches the convalescent camp, his escape appears to be certain.

CASE.—Private Dewitt, C. R., Co. C, 68th Penna., evidently a man of considerable intelligence, was admitted into Turner's Lane Hospital in April, 1864. The first glance at the man aroused our suspicion, and we examined his military history. After serving with the three months volunteers, and a subsequent commission as adjutant, in July, 1862, he enlisted as orderly sergeant in his present company. From some trouble with the colonel, as we learned privately from some others of his regiment, who also confirmed our suspicions as to his character, he had been reduced to the ranks, and in the sixteen months after, had never done a day's duty. He asserted it was under the operation of a general order as to absentees.

He stated that after being in hospital for diarrhœa, from Dec. 62' till June, '63, at his own request he was returned to duty. While on the way to the front, at the convalescent camp, he was sitting at noon in front of his quarters, after having superintended a squad of laborers, when suddenly he felt an "oppression in the head, and fell unconscious." When he awoke, towards night, in the camp hospital, he had full use of his left side, but the entire right side was paralyzed. Sensation and motion had been lost in the right face, body, and arm, entirely, and in his right leg partially, and he was unable to talk. At another time he stated that his right leg was not at all affected, and on our expressing surprise, evidently thinking it ought to have been so, he suddenly remembered that it had been almost entirely useless. His bladder, too, he first stated to have been unaffected; but on using the same tactics, we found that he had had incontinence. By a curious physiological contradiction, too, he stated that when his face was first paralyzed, his tongue and face had been drawn *to* the *right*.

Feeling and motion had gradually returned in all the parts affected, save that on admission his right arm was still weak, his right face was said to have lost sensation wholly, and motion partially. He limited the loss of motion mostly to the frontalis, levator palpebræ superioris, and tongue.

We began our examination by a course of facial gymnastics. He could shut both eyes well; could open the left widely, and thus elevate the eyebrow; but by no effort could he thus move the right eyelid and eyebrow. We ordered him to open one eye and close the other, and vice versa, when to our amusement, his mind being distracted by the double movement, his right eyelid and brow moved once or twice with the most perfect ease. Next, his tongue was examined. He inclined it also to the right, the

reverse precisely of what it should be, for, in cerebral palsy, implicating the 7th nerve of the same side, the body of the tongue (like the face) is usually drawn towards the sound side. Thinking, however, that, as in the case of his frontalis, we could trap him, we told him to protrude the tongue, on the plea of examining his palate. He first protruded it perfectly *straight*, and then, remembering that it ought to be paralyzed and crooked, he suddenly threw it to the right. Every other movement he possessed perfectly, and his pronunciation of the linguals, gutterals and labials was perfect.

The next point was the sensibility of the skin. He first had his eyes closed, and on touching him with a pencil, he stated that he felt nothing. We then suddenly thrust a needle into his face, when he also declared the absence of feeling, and he certainly did not wince. We now tried dry galvanism with Duchenne's powerful battery, powdering his face with flour, and applying the electric brush. The moment the current was established, he slid uneasily forwards in the chair till he could furtively seize the seat and brace himself, by his hands and feet, to bear the pain. By these means, and by secretly grinding his teeth, a movement betrayed by the tell-tale masseters and temporals, he bore the severe pain, which bedewed his face with perspiration, and declared, with amusing nonchalance, "that he could just feel it a little."

His body, he stated, was perfectly free from disease, but we thought we could work a little on his imagination, and proceeded to examine for spinal tenderness, remarking, casually, that we thought it an instance in which we should probably find "that tender spot about the middle of the spine, which we had so frequently found in such cases." He was completely deceived by the allusion, and on our reaching the middle of the spine, he suddenly quaked and shrank from the pressure, saying it was very tender there. Pressure being continued, and allusion made to a patient who had fainted on being pressed at that spot, immediate syncope was threatened, and was only prevented by his breaking away from us with a look of agony. He speedily returned to duty, with a note on his descriptive list.

Thoracic diseases have fallen under our care but rarely in our present wards, which receive none but instances of neural diseases or injury. We have met, however, with some cases of feigned consumption and heart diseases. We are indebted to our colleague, Dr. Da Costa, for most of the following particulars. In his position as surgeon in charge of the wards for thoracic maladies, he has had ample opportunities for studying both real and feigned cases.

He has found that consumption and shortness of breath are among the most frequently simulated diseases of the chest. Dyspnœa in these latter cases is never worse at night. It is not altered by exercise, and those who feign it make an unusual display of noise in breathing.

Consumption in its early stages is more readily feigned. By constant coughing, a well man can produce great irritation and congestion of the throat, and the expectoration of quantities of mucus, which he may tinge with blood from his gums, or pricking his finger, &c., and it seems cruel to send a man to duty who is "spitting blood." The only way to detect them is to watch them with the utmost exactness, and especially to make the most careful and conscientious physical examination. We are convinced that most of those who escape field service from this cause do so because of the want of confidence of surgeons in the accuracy of their diagnosis. They are not sure but that there *may* be some disease which they have failed to observe, and so they take the safest course and let the men go. No remedy can be found for this difficulty but careful and dilligent study and practice on the part of the surgeons.

The uncomfortable and curious production of heart disorders by tying ligatures tightly around the arms and throat, noticed by some older writers (*Dict. des Sci. Med.*, vol. 51, p. 326), has, we are sure, no place in our army, and we think no surgeon could be deceived by such means. Nor do we suppose that medicinal agents, such as white hellebore, digitalis, &c., have been employed. The means that are used are much more ready to hand, and are safer. Such malingerers, when examined, nearly always hold their breath, apparently with the idea that it has *some* effect on the heart. To such an extent do they practice it that to avoid its obvious functional influence Dr. Da Costa always observes carefully that this function is normally continued. The use of tobacco, especially apt to be excessive in their lazy hospital life, unquestionably tends to produce functional disorders. But they also constantly assert very severe *pain* directly over the heart, which is not a frequent nor urgent symptom of true cardiac troubles. One person in Dr. Da Costa's wards, an obtrusive, persistent man, was in the habit, greatly to his annoyance, of seizing the Doctor's hand and convulsively pressing it over a heart beating at sixty-eight or seventy, begging him to see how it beat! and what a pain he had!

Some people have undoubtedly the power to control the pulsation of the heart, either accelerating or slowing it at will. A remarkable case is quoted by Hennan (*Military Surgeon*, p. 371), in which the patient could simulate even death itself. But such cases must be rare. In Dr. Da Costa's extensive experience he is unaware of a single instance of this voluntary control over the cardiac actions.

It is, however, a point to be remembered. One of us, Dr. Mitchell, has shown, see *Amer. Journ. of Med. Sci.*, April, 1864, that in some persons deep inspiration, when long continued, will retard the heart pulse as much as thirty beats per minute, while deep expiration is competent to produce great acceleration of the pulse.

Aphonia.—This seems to be a disease feigned by soldiers of late years only, for scarcely any of the older writers on malingering even mention aphonia, although they treat of complete dumbness. We have now had under our care nearly twenty cases of loss of voice, more or less complete, only one of them amounting to true dumbness. This last case was seen by one of us at Frederick City, Md., after the battle of Antietam. His story was that a shell exploded very near him, and that he was so stunned as to fall senseless. He was sure that he was not hit, nor could any evidence of a blow be found a week afterwards, when first seen by Dr. Keen. In falling, he had hurt the back of his neck slightly, but no bruise existed even there. When he regained consciousness, in about twenty minutes, as he judged by the movements of the regiment, he found that he had completely lost his voice. No other effect was observed. When examined, in Frederick, he gave a very intelligent and consistent account of himself by writing his answers, and his character as an industrious and willing nurse, at a time when such duty was no sinecure, was of the very best. His hearing and eyesight were perfect; all his limbs were sound; his appetite and digestion good. No laryngoscope was at hand, so that no complete laryngeal examination could be made. His breathing was regular and even, but he seemed unable to make the slightest sound. Every possible test, even to etherization, was thoroughly employed, but no sign of vocal power, not even a cough, was detected. After six months' surveillance as a nurse, he was discharged. We have no doubt of the reality of this case. Was it a case of reflex paralysis through the intermediation of the auditory nerves? We have seen cases of strabismus produced by the same cause.

But two of these cases examined by us of late have been imposters. In every instance of hoarseness, whispering voices, or loss of voice, we have used ether as a primary test, and always in the ward, before the other patients. It has been greatly to their amusement, as well as our own, to hear a whisperer begin to lisp out his feeble and sometimes pretended silliness, but soon with charming forgetfulness roaring aloud. The jibes and jeers of the men in the ward are all that are afterwards needed to make such men ordinarily the most willing candidates for the front.

But here, as in all cases, the greatest care must be exercised in giving the ether. No examination should stop short of complete and thorough anæsthesia, unless voice reappears at an earlier stage. It must be remambered that in the army, where so many men are familiar with the use of ether, they sometimes *simulate the effects of etherization*, as well as the aphonia. Two very entertaining cases of feigned aphonia occurred at the 16th and Filbert St. Hospital, Philadelphia, for which we are indebted to Dr. J. Da Costa, one of which is in point. The man completely simulated the muscular relaxation and stertorous respiration caused

by ether, and the surgeons were about to give up the case as genuine. The administrator of the ether, however, poured some more on the sponge, when, after a few inspirations the patient passed into the real stage of excitement, shouting at the top of his voice, and that no slender one.

The second man, on regaining his senses, found himself talking without the slightest difficulty, but quickly recovering himself fell at the surgeon's feet, with clasped hands, exclaiming, with a voice and attitude worthy of a Garrick, "Thank God, doctor! you have restored my voice."

Sometimes, it is true, no voice will be elicited from a healthy man by etherization, but these cases are not frequent, and still less frequent would be the chance of its occurring in a case of feigned aphonia. If it did, the ether would of course fail to exhibit the deceit, and he could only be exposed by catching him in some other way. Practically however, *every* case of aphonia should be etherized, even when inflammation really exists, and if no voice be elicited, should be considered genuine, and treated as such. We can hardly expect to meet with such a simpleton as Parr speaks of in his *Medical Dictionary*. "How long have you been dumb, my good friend?" asked a passenger with the most insidious humanity. "Three weeks, sir!" replied the incautious deceiver.

Epilepsy.—We have had a very large experience in the treatment of this malady, having had between eighty and ninety cases under our care. That real epilepsy should be so frequent in the army need not excite astonishment when we consider the numberless cases of wounds of the head, sunstroke, falls, &c, and the immense exposure incident to such a life. When compared to the number of the insane, it is not remarkable

It is certainly, we think, not frequently feigned in our own army. The "petit mal" we have not seen feigned in a single instance, and, although it is not impossible that some cases may have eluded our observation, yet we are only aware of three cases in which any form of the disease was simulated.

That it should be feigned at all is not a matter of surprise. It is a frequent disease in the army. It is characterized by so great a variety of symptoms that it often seems to know no law, and above all its healthy intervals, so greatful to both real and assumed sufferers, its possible attacks when away from the hospital, or at hours when the surgeon is not present, and, as observed by Ballingall, its intermitting character, which obviates the necessity of continuous simulation, are so tempting that its infrequency in our army should rather astonish us.

It is a most difficult disease to detect. Some authors regard it as easy to decide between the real and assumed disease, and speak of it with a flippancy which shows conclusively that they have seen but little of the disease. In every case before us we have asked ourselves, "Is it real?" and have never neglected, at any

hour, day or night, to observe carefully the paroxysm itself, and yet in many cases it has been only after the most patient observation and thought for months that we have been able to decide. The very reason why it is simulated is the difficulty of its detection, as already observed. It is difficult to disprove the loss of consciousness and of sensation; and the undoubted existence of reflex actions, as we shall show, adds greatly to this difficulty; the convulsive movements are of such a character, frequently in the real and almost always in the assumed fit, that the pupils cannot be observed, and the endurance and persistency of many malingerers is such as almost to set at defiance all severe means. It is chiefly "by artifice that feigned epilepsy can be fully detected," (Copeland, *Dict. Prac. Med.*, i. 1031), but even this, in a large hospital, is often only valuable in the first instance in which it is employed, since it then may become notorious throughout the ward. Forewarned is forearmed, and artifices such as have sometimes been used, such as to purpose to pour boiling water on the person, and then to pour really cold water on him, or intended castration, or the insertion of a red hot ramrod into the rectum (as once proposed with success by a naval officer), all lose their value with their age and their notoriety.

Besides this, we have to contend constantly with the want of mathematical certainty in nearly all tests, and this not only applies to this disease, but to all others. The evidence is often circumstantial and cumulative, and each surgeon must judge for himself, when the point is reached in individual cases at which it shall be conclusive.

One remark should here be made as to their discharge. If the epilepsy is not more frequent than once a month, nor such as to incapacitate them for work in the meantime, they should not be discharged, but should be transferred to the Veteran Reserve Corps and employed on hospital duty. That this is quite possible is shown in our own hospital, where in the kitchen, dining-room, wards, and even on guard, we have a number of the most efficient men who are epileptics.

Many of the test symptoms, which we see largely dilated upon in the books, we are quite sure are unreliable. Thus, in true epilepsy, the thumbs are said to be flexed under the fingers, and frothing at the mouth is described as an almost constant symptom. It is said, also, that the eyes are opened and staring, that the tongue is generally bitten, that a cry ushers in the attack, &c. The cases we have seen have been nearly all produced during service, and hence our remarks apply to these alone, and not to civil cases. Now among the army cases any of the above named symptoms may be absent. Few men cry out when the fit begins, the bitten tongue is very rare, nor are the other popular medical tests of genuine epilepsy any more reliable. Injury from the fall has been considered important as testimony, but most epileptics sink relaxed before becoming convulsed or rigid, and so do

not hurt themselves, or else, as is common, they have a moment's warning, and crouch at once, so as not to fall. Gavin, *Cyc. Pract. Med.*, tells us that the true epileptic does not sweat during the fit, a proposition which we positively deny. It has been also said, that, if a cold douche checked the fit, it was sufficient to prove it a feigned attack; but this is made useless by the fact that we have seen more than one case of true epilepsy in which a cold douche would terminate at once any single fit. Nor is the expression of the face more available, because it only comes later in the disease, and in many cases not at all.

Apart from the points just referred to, there are others which are more important as tests, and which have been so looked upon by authors. The most characteristic of these, are loss of consciousness, loss of sensation, absence of reflex movements, such as immobility of pupils, want of response to tickling by muscular acts, etc.

And first, let us premise that too little has been said about the time at which these tests are applicable. In the fit quiet observation is difficult. We have seen in our wards one hundred and fifty-eight convulsions in three days and nights, and with an experience, of which this is mentioned as a sample, we confess that it is often very hard to make correct observations during a fit, and that in some cases it is impossible. The period of repose, stertorous sleep, or coma, which follows so many real cases, and is imitated in false cases, is better adapted for observation, and tests which apply to it are most reliable. In a large number of our own cases the epilepsy consisted in a succession of paroxysms, extending over one or many hours, with intervals between, of utter unconsciousness. We met, also, with cases of single fits, at every possible interval, and with a strange and confusing number of instances of recurrent vertigo, of catalepsy, and of every form of spasms known to medicine. One and all are entered on army descriptive lists as epilepsy.

The first admitted test is loss of consciousness. Consciousness is exhibited by the outward evidence of mental acts, requiring reason, memory, perception, etc. Sensation is made known as active, by evidences of pain when irritants are applied to sensitive surfaces. When actual distinct evidence of consciousness during a fit has been obtained, the man must be a malingerer. But we have met with several cases of convulsive nature, where apparent consciousness existed in the fit, and in the interval between two of its paroxysms. The man replied to questions, and gave other evidences of mental activity; and yet these cases came to us labeled "epilepsy." Would the test of apparent consciousness have been of safe application in them?

The books speak of absolute insensibility as a test in epilepsy, and of the use of sternutatories, hartshorn, hot water, the cautery, and other severe means, as applications to suspected cases. They state that the real epileptic will make no response to such agents,

and that if he give evidence of sensation he is malingering. Here, again, we beg leave to say that if this refers to the fit itself, it is incorrect for light cases, and practically inapplicable in cases of very severe convulsions. Epileptics in a slight fit, or at the beginning or close of a severe one, do very often move when irritated, responding by simple reflex acts, and not by co-ordinated volitional motions, calculated to evade the irritant, or to protect the part. We have seen a severe paroxysm caused by the use of the hot iron during an interval between two spasms, and almost universally they winced, and flexed the fingers violently, when a needle was thrust under the nail; but no effort was made by them to draw away the hand, or push aside the needle or the iron. We must, therefore, be careful as to the proofs of insensibility which we accept. This is the more necessary in a class of cases of which we have seen several instances. In these there existed a locality, large or small, which seemed to be hyperæsthetic during the intervals, and even in the separate fits. If this part were pinched when the patient was half conscious, it aroused him. If he were in the fit, it intensified that, and if in a deep after sleep, or awake, it often caused instantly a new fit. The region thus become hyperæsthetic was, usually, unconnected with the cause of the fit, and was most often the pectoral muscles, or those at the back of the neck. In these localities the muscles of such cases were at all times tender on pressure, while, during the interval between paroxysms, occurring at brief distances of time, they were so tender as to give rise to the effects above detailed. More will be said of these singular cases in our papers on epilepsy and hyperæsthesias. We have said enough to show how great must be our caution when judging as to what amount of sensation exists in a given case of supposed epilepsy, for, as we have seen, there may occur in real epilepsy certain consequences of irritation well calculated to deceive.

Even in simulated epilepsy, where the cheat is undoubted, it is not very easy to procure decisive evidence of the existence of sensation. In this state of violent and voluntary muscular spasm the power to feel pain is greatly blunted, and the body is in the best condition to resist pain. All of us bear pain better when we set the teeth, grasp a chair, or otherwise cause severe muscular movements; while also there seems to be some instinctive relief in the active motions which every one makes use of when in sudden suffering. It might easily be shown that this is not the only instance in the economy where the use of one function lessens the perfection of another; but enough has been urged to show that in a simulated fit it is not easy to get certain evidence that a man feels. If we apply our irritants in the simulated after-coma, we are met by the fact that in the post-spasmic stage of real epileptics every conceivable amount of variety exists as to the power to appreciate painful impressions. Perfect insensibility, if it exists here, is of value as evidence; but all less distinct signs of conditions within this state are of imperfect use and value.

The state of the reflex system as to responsive movements in the fit, or in the after comatose state, has been carefully attended to in a large number of our cases. Contrary to the general belief and statement, we have been compelled to believe that in a majority of epilepsies, when observation is possible in the fit at all, it will be discovered that reflex acts follow the use of irritants. If you choose a moment of pause in a paroxysm, and tickle the foot, there will be jerking of the leg, or flexion of the toes. If a needle be run under the nail, he will wince, or stir a little, while in some instances a blow aimed at the open eye will cause winking. It will also be found that irritants often cause reflex movements in the condition which follows a fit; but again we say that no one can apply these tests in a severe epileptic convulsion. Their proper appreciation demands care and delicacy. They are useless and vain amid the storm of muscular action which makes some of these fits so terrible

The most important test founded upon the supposed loss of reflex susceptibility is the state of the pupil. Upon no other are all authors so firmly agreed, or so emphatic. We are sorry to add that no other has more deeply disappointed us.

We may formularize the general medical opinion thus: In an epileptic fit the pupils are generally dilated, and are insensible to light, being perfectly moveless. They cannot always be easily observed in a spasm; but when they can be, the test is a perfect one. Other authors qualify this opinion, stating that in the fit the motions of the iris are very slow, or altogether abolished. It is furthermore believed that these conditions of the iris cannot be simulated, and can arise only from disease. Here is the popular medical belief, echoed in the last works on diagnosis and recruiting, etc.

We ourselves are of opinion that when, in a fit, the pupils, largely dilated, remain impassive and motionless before a bright light, the case is almost certainly a real one. But, unfortunately, this state of things is of very rare occurrence, even in severe fits. The pupils unquestionably contract in the presence of a bright light in many such cases. Sometimes the movement is sluggish and slight, in others it is almost normal as to range and speed of movement. Soon after the first of these observaitons had been made, and we had begun to suspect the fallacy of the pupil test, we saw a case of well feigned epilepsy (detailed below), in which the patient had an indirect voluntary power to control the pupil by converging the visual axes in the effort to squint. The question then arose as to whether any indirect means existed by which a patient could cause the pupils to dilate. It certainly seemed as though the pupil were unusually large in some cases of feigned epilepsy. Few possess voluntary control over the pupil. Was it enlarged unconsciously in some indirect way? To answer these questions,

we ourselves imitated an epileptic fit. For this purpose we lay down, and were fastened with two broad girths which ran across the shoulders and over the waist, while the hands were so strapped to the bed as to give them some play. Exactly such means were used in our wards to control within safe limits the too violent actions of epileptics who we had not force enough to guard without these aids. The fits were simulated as closely as possible, while the members of the hospital staff, in turn, noted the phenomena.

It is needless to say that the fits thus produced would have been invaluable as clinical studies. We feel sure that they might have deceived the most acute physician. As regards the eyes, the following results were obtained: Holding the breath, so as to congest the face and head, causes no change in the pupil. Violent muscular motion instantly dilates the pupil; and so long as the movement continues, so long will the iris move slightly and sluggishly in the presence of bright lights. In some persons these effects are remarkable, but in general they are obvious enough. It seems, therefore, that the dilated pupil of convulsions may be due, in part at least, not to the cause of the convulsion, but to the spasms themselves. Malingerers are always profuse in the exhibition of spasms, and how then are they to be detected? Their pupils will be dilated and sluggish like those of many epileptics, from the muscular spasms alone. In some cases of epilepsy, undoubtedly, the pupils are immovable, and we are not aware that a malingerer can imitate this; but in a large number of real cases, and in all the feigned ones, the pupils will be precisely alike. Hence we conclude that in most cases the pupil test of feigned epilepsy is utterly worthless.

If, now, we be asked, How would you, then, detect a malingerer? we would reply that it is often a very difficult thing to do, but we should look to the following tests: We should observe, first, the patient's face and mental condition, to see if they had been influenced as yet by the disease. Next we should obtain his personal character as nearly as possible, and all the particulars of the origin of his malady and of his general health, to see if there were any contradictions developed. We should observe where and how he was attacked by the fit. One of our patients, whom we had suspected, set our suspicions at rest when we learned that he had unquestionably had a fit in his *sleep*. We should then observe one or more of the attacks, and never should we decide without doing so. If we can discover any true signs of real consciousness or sensation, unquestionably the man must be a malingerer. Hence if he grows worse when visitors are present; if he opens his eyes, evidently to see what is going on; if he does not fall off the bed when not held, but struggles sufficiently hard to do so when he is held; or if he exhibits pain, and not reflex movements, from irritants purposely applied, or from self-inflicted injuries, or if he should suddenly recover when severe measures are proposed in his hearing, we should class him as a malingerer

Perfectly immobile pupils, *especially in the absence of violent spasms*, we should regard as an evidence of real epilepsy, but only when they were thoroughly and carefully observed during the spasm itself, which is often impossible. A genuine epileptic usually will keep his hands open if they are forcibly unlocked, while a malingerer rarely does so. His face is pallid before, and flushed or intensely congested during the spasm, while the pallor again returns after the spasm is over; and he usually is sleepy, or falls asleep after the fit is over.

There remains for consideration the ether test of epilepsy, and this we believe to be original with us, and to have been used alone in our hospital wards. We should feel glad to see it tried by other surgeons, as occasions offer. The ether test has been only of late employed by us, and has been tested in eight cases of true epilepsy, during eighteen fits.

Ether has been used by us in two ways, or with two objects in view. We have given it to supposed epileptics who were having successive spasms, with intervals of rest. Now, when thoroughly given, ether will arrest the fits, but as the man revives he will often chance to have a fit while still so far anæsthetized as to make it incredible that he should have arranged the phenomena by will. Here everything will depend on the experience and skill of the observer. If he be sure that the new fit preceded the return of consciousness, it is a genuine case. It is well to add here, what was, we think, unknown, that in some persons who are liable to epilepsy the administration of ether will bring on a fit. We are aware that this is also the case as regards the use of alcohol, which in certain epileptics is sure to result in an attack.

The second form in which we use ether as a test is also, we believe, a novel one.

When ether is administered to a true epileptic case, its first effect is to increase the violence of the spasm, but eventually the patient passes into a deep ether sleep or coma, without any of the usual cerebral excitement. He does not talk or laugh, but goes directly from the state of convulsion into a profound comatose condition. The hyperæsthetic spinal system seems to respond alone to the stimulant power of the ether, while the cerebral centres do not, or at least the only effects which are outwardly expressed are those of spinal origin. When the same test is applied to a false case, the patient presents all the usual effects of ether, talking, laughing, and acting his dreamed delusions in the ordinary way.

When ether is used during the state of comatoid sleep which follows many fits, there is also an absence of all manifestations of excitement, and the sleep only becomes more intense.

It appears to us that the ether test, as proposed by us, is the most valuable and certain of all the means hitherto employed to unmask cases of feigned epilepsy.

The following cases will be found to illustrate many of the points discussed in the foregoing pages:

CASE.—W ——, private, simulated epilepsy from dog-bite, and imitated the animal as far as possible. His fit was so poorly done that even the ward-master suspected him, and in a few days, his conscience smiting him, he confessed the cheat. We never saw an attack.

CASE.—*Feigned Epilepsy.*—Admitted, Nov. 18, 1863, J. W., æt. 17, native United States; enlisted June, 1863, Company H, Sixth P. V. Cavalry, a medium sized lad of healthy appearance. He gives the following account of himself: His family history presents two subjects of epilepsy besides himself, a sister and his mother, who died in a fit during child-birth. He remembers hearing it said that he had fits when a child, but knows nothing of them. The second occasion of paroxysms occurred on the day following his enlistment, without provocation of any kind, except possibly the excitement of entering the service. Since that time his attacks have recurred on Friday of each week with remarkable constancy, a constancy that seems unnatural, considering the vicissitudes of diet and transportation to which he has been subjected in changing from hospital to hospital, and which gives no evidence of a periodical cause either in history or symptoms. His expression of face also is an unusual one for an epileptic; there is none of the half narcotized look so common in this disease; his eyes are sharply set and bright, the features are mobile, expressive changes are rapid, and promptly follow the thought; there is evidently no obstruction between the will and muscle. To be watched.

Ward-master thinks the attacks genuine. Type violent, eyes strabismic, pupils contracted and unaffected by light. After the attack, complains of headache, and binds the head tightly with a handkerchief for several hours. His general health is, however, unaffected by the paroxysms, his appetite is good, functions regularly performed, sleeps well, and has his fits only in the ward.

The paroxysms were carefully observed by Dr. Keen, and thus noted: the prodromata usually consist of a great difficulty of breathing, which exists to a greater or less extent nearly all the time, but which is greatly exaggerated at the time of the paroxysm, so that his notrils distend at each expiration, and he grasps his chest on both sides with his hands as if desiring to tear it open. This tightness, or constriction, is said to travel from the diaphragm up, and he can answer perfectly well, and indicate its location intelligently till it reaches his forehead, when he loses consciousness. The time of this progress varies from a few minutes to a couple of hours. Just before the attack the sensation he experiences is accompanied by a pricking sensation, as if knives were being stuck into him, and this is most common at the median line of the chest. Coincident with this sense of constriction the flexors of the left fingers begin to contract spasmodically, and universal trembling exists as though he was shivering from nervousness. Vertigo often precedes the fit. At the same time that he loses his con-

sciousness, his eyes are strabismic in the horizontal axis; the pupils are strongly contracted, and on being exposed to the light they vary in size very slightly, expanding and contracting, but still remain greatly contracted from the normal condition, in which the pupils are rather larger than usual, and quite sensitive to the action of light. The flexors of the fingers on both sides become tonically contracted so that it is impossible to open his fists. He champs with his teeth, and, unless prevented, often bites his tongue. The head is thrown strongly backwards with abnormal strength, and in a state of clonic spasm. He struggles considerably with his arms and legs, but not more on one side than on the other. Gradually he recovers his consciousness, his eyes become straight, all the symptoms ameliorate, and, with a more or less severe headache, the attack passes off.

During the visiting hour a paroxysm occurred, and he was subjected to the ether test. The fit was fully installed, general clonic convulsions had been repeated three or four times, the eyes were strabismic, head retroverted, and he was supposed to be unconscious. There was observed to be wanting during the interval between the paroxysms that alteration of deadly pallor and flush, that curious play of the blood over the unconscious features of the true epileptic which can hardly be simulated, and which points most instructively to the important position the organic nervous system may hold in the pathology of this obscure disease. The application of the ether to the nose was resisted by well directed efforts, but the stimulant soon began to show its effects: the tongue let out the thoughts, and the brain forgot to hold the eyes convergent, and then remembered it again with a sort of betrayed look most curious to see. The effect of ether on the true epileptic, if administered during unconsciousness, is, at first, to increase the strength and frequency of the paroxysms, and eventually, if persisted in, to produce complete relaxation with profound coma. He does not rouse from his unconsciousness and laugh and talk, but passes quietly, as far as cerebral manifestations are concerned, into the anæsthetic sleep. The hyperæsthetic spinal system seems to appreciate the primary stimulating effects of ether, while the cerebral centres do not, or, at least, the effect of the stimulant is only exposed through the spinal system.

Dec. 23. Just at this time he began to seek his discharge, both personally and through the Washington authorities, but being fully convinced now of his malingering, we denied the request, and decided to establish an issue by means of the actual cautery. This was mentioned purposely, in his hearing, to the ward-master in the tone of a stage "aside," and a few days afterwards was carried into effect when he was in a fit. His evident pain and efforts at evasion, had he been a genuine epileptic, might well have led us to do him injustice, but it is to be noted that even in a true epileptic, while the sensation of pain was abolished, the appreciation of irritants, as expressed through the reflex system

in reflex motion, still exists. In many genuine cases we have tried the actual cautery, pricking by a pin under the nail, tickling the feet, or pressure on hyperæsthetic parts, and they invariably endeavored to escape from the irritant. The expression—"escape from the irritant"—is to be noted, for they wince and shrink from it, while at the same time they do not endeavor to brush it away by co-ordinated muscular movements of other parts than those irritated. In other words the action is reflex, and not in any sense voluntary. In the same manner if, in the unconscious stage, even in those cases where the eyelids are wide open, the fist or finger is struck at them, without actually inflicting a blow, they will wink ordinarily. This is another indubitable evidence of the activity of the reflex system, which must always be taken into account in pronouncing a judgment as to the true nature of asserted epilepsy.

Some three or four days after this he had another attack, as if to test our determination to apply the cautery. We answered his demand by an immediate compliance. The fit having passed off, we applied the cautery without etherizing him, much to his disgust, and equally to his relief, for no further fits occurred. Soon after he declared that he had had several at home, when, of course, all passes were interdicted, as, evidently, the influences at home were more delecterious than those in the hospital. Even the men enjoyed a grim satisfaction in his detection, and whenever he threatened to have an attack, as he did several times, they would effect an immediate cure by calling loudly, "Martin, is that iron hot?" About ten days later, when the ulcer resulting from the cauterization was nearly healed, he brought matters to a head by demanding whether we thought he was "playing off." He was assured with some warmth that we did, and was immediately confined in the guard house for a week, and then sent to his regiment. To make the case complete, his parents, although he stated that his mother was dead, offered to prove that he had had epilepsy from childhood, and protested loudly against our injustice; but when requested to adduce affidavits from a physician to that effect, they proceeded to the private residence of the surgeon in charge, and offered a bribe of fifty dollars for his discharge. His subsequent history we know nothing of, but we were careful to inform both the provost marshal and the surgeon of his regiment of his malingering. It is probably too much to hope that he ever did any duty.

Case.—L——, May 8, 1864. Having watched for the chance for over a week constantly, it at last came. The fit was freely inaugurated with a champing of the jaws, and violent struggles, especially in throwing his head back on the bed. In a previous fit in the guard house he was exceedingly careful to throw his head back only on the blanket, and his efforts manifestly declined the moment he had struggled on to the floor.

The ether was administered carefully, giving considerable air with it, so that he should not be too suddenly etherized, as he was breathing deeply and hurriedly from the great previous physical

exertion. After a few inspirations the paroxysms, which had recommenced the moment the ether was applied, lost their purposive character, and became violent struggles to tear the sponge away from his face, at the same time spasmodic deglutition and puffing respiration occurred, and in a few moments he began to cry out, and to laugh. The ether was then stopped, and he began to exclaim, "Faster, faster!" Presently some one said, "It is played out." He echoed, "pl-pl-played-play-ay-ay-ayed out-to-out-out-out." At this time the surgeon left him, and as he came to thoroughly, he asked where the d—— Dr. Keen came from, for he had supposed him absent from the hospital. He was sent to the guard house immediately, and returned to duty the next morning, with a note on his descriptive list, to the effect that he was a complete and remarkably good malingerer.

CASE.—*Genuine Epilepsy.*—Jas. Cyphers, April 29, 1864, 7.30 P. M. The attack was in full progress, eyes upturned, pupils dilated, hyperæsthesia excessive, so that pressure on any part of the trunk, at least anteriorly, instantly produced a severe spasm. He had already had five paroxysms when the ether was applied immediately afterwards, while his respiration was deep and hurried. He had, after a few inspirations, another slight attack, throwing his head backwards and forwards but two or three times. After a few more inspirations he had another, which was rather a slight twitching, and then he passed quietly and speedily into coma, without any efforts to avoid the ether sponge, or without any manifestation of cerebral excitement. As soon as he was completely relaxed, pressure at any part was borne without the slighest wincing or attempted spasm. In the ordinary length of time he regained consciousness, with nausea, which soon passed off. On recovery, he had a good deal of mental excitement, "felt as if he had been very drunk, etc." The hyperæsthesia was absent, and the paroxysms did not recur at this time. Undoubtedly a true case.

CASE.—*True Epilepsy—Use of Ether.*—Gaskill, April, 29, 1864. After suffering greatly with the pain in his side, for, say, three-quarters of an hour, he passed into a paroxysm; after the fifth the ether was applied. He had a slight jerking of the shoulders, the usual immediate prodromata of a fit, but they speedily subsided, and he passed into the state of coma without the slightest sign of mental excitement, nor did he attempt to evade the sponge, nor make any attempt at deglutition. After awaking, as usual, he had the ordinary signs of etherization in the mental wandering and hilarity so common, but it was very short. He had no more paroxysms, nor any further pain, which usually follows the attack for half an hour to an hour.

May 2, 1864. Etherized him again. The attack came on without the usual precedent pain. It had ended, and he was conscious when the ether was used. After a few inhalations he had a regu-

lar paroxysm with all the ordinary phenomena. The attack was brief and mild, and he passed at once into coma. There was no attempt to evade the sponge, nor was there any cerebral excitement. On arousing, soon after, he had slight mental excitement, but no pain until fifteen minutes had elapsed.

May 5, 1864. He was etherized four times; once after an epileptic fit, and thrice for severe cramps; he was perfectly conscious each time; he passed, as before, into total coma, with precedent cerebral manifestations, and with spasmodic deglutition. The cerebral excitement was very slight, and the subsequent stage of exhilaration very short.

Case—Henry Hardmeyer, April 4, 1864. The attack had existed for ten or fifteen minutes, and several paroxysms had occurred when the ether was applied. He immediately struggled violently, throwing his head from side to side. This seemed to be an attempt to avoid the ether, but it is to be observed that this is a phenomenon ordinarily attending his paroxysms. He made no effort to brush the sponge away, and no efforts at deglutition, but struggled violently in every limb. His respiration was, however, so hurried and deep that he speedily passed into a state of coma. There was at no time the least cerebral excitement, no shouting or calling on others, as he was wont to do, even in the ordinary paroxysms, but he quickly lay quietly relaxed in every muscle, breathing gently and naturally. He awoke soon after, quite conscious and excited, offering to shake hands with every one. In a few moments the spasms returned with unabated violence.

Case.—Stahl, May 2, 1854. Several paroxysms had occurred, and when he was semi-conscious, as he usually is between the fits, the ether was applied; he was not breathing hurriedly; he passed, however, very quickly into coma without any stage of cerebral excitement whatever, and even without any accession of muscular excitement, either epileptic, or as an effect of the ether. No effort was made to resist the ether, nor was there any of that choking and attempted deglutition usually seen in administering ether. He speedily recovered from the ether, and passed quickly into another paroxysm of the same character and intensity as before.

Case.—Ridley. The attack was in progress, and he had two paroxysms; the reflex system was still active, as sticking him under the nail with a needle caused the jerking away of the hand; he winked if struck at, or if the conjugativa was touched. The ether was given while he was not breathing very heavily; he did not try to resist or escape it, nor did he make any vain attempt to swallow, but passed without cerebral manifestations into complete coma, preceded, however, by two short and imperfect epileptic attacks. So soon as he awoke he passed almost immediately into two other attacks, evidently before regaining full consciousness. These threatened to continue, and the ether was given him again,

when, without struggles or mental excitement, he became comatose a second time. He then awakened in a very short time, and in this he resembled other epileptics in whom the recovery from the coma, and the supervention of delirium is very rapid. The usual subsequent pain in the left chest, and the hysterical choking, did not appear until half an hour later, and were then slight and brief, contrary to what he had usually experienced.

May, 6, 1864. Etherized him again while in the fit; he became comatose without mental excitement; spasmodic deglutition was present, but he did not seek to evade or thrust away the sponge. It is to be observed that the globus hystericus is usually a marked symptom, both during the fit and subsequently. No subsequent pain or globus hystericus appeared, but a short cramp occurred.

Case.—Marsh. The fit, which was very mild, so far as the muscular spasms are concerned, was in full progress, and had continued for about half an hour, when the ether was administered. He endeavored to avoid the ether, not only by movement of the head, but also by seizing the ether sponge, and thrusting it from his mouth, with his right hand. He passed, however, directly from the stage of epileptic unconsciousness without spasmodic deglutition into anæsthetic coma, perfectly relaxed and quiet, without the least cerebral excitement, and remained in this state for nearly three quarters of an hour, when, without the slightest interval of consciousness, the usual prodromata returned, especially the twitching of the flexors. At first very slight, the spasms increased in force gradually until the attack developed itself in full force. The interval between the two paroxysms was much increased by the ether. After repeated attacks during forty-five minutes he became semi-conscious, and finally fell asleep, and slept until next morning, when he still complained of drowsiness.

In concluding this paper, which has been written among other and excessive professional labors, we desire to state that it is not meant to be a complete treatise on malingering. We have desired principally to tell what we ourselves have witnessed, to present to the army surgeon new tests, and to criticise the statements of others in the light of opportunities such as have been rarely presented.

Placenta Prævia.

Dr. Robt. Greenhalgh read a paper on this subject before the Obstetrical Society of London, July 6, 1864. The author first alluded to the large mortality both to mothers and children (one in four and a quarter of the latter), which he attributed mainly to the severe and repeated losses of blood, to the delay in effecting the delivery, and the method of turning usually had recourse to in these cases. He then gave the details of twenty-four cases which had occurred in his own private and consulting practice between the

years 1842 and 1864. He placed before the society several statistical tables, chiefly taken from Dr. Read's work, to show, in addition to other facts, that the expulsion of the child generally takes place before the full period of utero-gestation—premature labor being the rule and not the exception; that nature, unaided, frequently terminates the delivery with safety both to mother and child; that complete and partial artificial separation of the placenta before the birth of the child has failed in numerous cases to arrest the hemorrhage; and that these methods and turning had proved most unsatisfactory in their results. Having dwelt at some length upon these several points, he strongly advocated a close observance of the way in which nature terminates these cases with safety to mother and child. Having specified the result of his observations on that head, he confidently recommended the following plan of treatment, which had proved, as far as the limited number of cases could prove, in his hands and in those of others, far more successful, both to mothers and children, than any other method hitherto devised. It was as follows: 1st. That in any case of hemorrhage, whether profuse or otherwise, occurring after the commencement of the seventh month of utero-gestation, ascertained to be due to placenta prævia, artificial premature labour should be induced at once, or as soon as the condition of the patient will admit of it. 2dly, That in order to effect that end without loss of blood, an air ball, covered with spongio-piline, be passed collapsed, into the vagina, and then inflated so as effectually to fill that canal, while a bandage is placed firmly round the abdomen; at the same time the ergot of rye and borax are to be administered in repeated doses. He further recommended as aids, stimulating enamata, with tincture of nux vomica, galvanism, and friction over the abdomen. The author concluded by condemning, in the strongest terms, the use of general hygienic means and hæmostatic remedies over days and weeks in these cases, which course, he was firmly convinced, was the cause of many valuable lives being lost.

Dr. Barnes observed, that agreeing generally in the principle that labour should be brought on in cases of severe hemorrhage from placenta prævia, a principle, he believed commonly acted upon in London—he could not assent to much of Dr. Greenhalgh's reasoning, or concur in approving his plug. His statistical reasoning was open to criticism. He assumed two postulates: first, that the mortality in placenta prævia was 1 in $4\frac{1}{4}$; secondly, that the mortality from inducing premature labour was one in 53; and he drew the extraordinary conclusion that by always inducing labour we might substitute the low mortality of premature labour induced under selected circumstances for the assumed heavy mortality of 1 in $4\frac{1}{4}$. Now both the postulates were false, and the conclusion was manifestly illogical. The mortality of 1 in $4\frac{1}{4}$ drawn from Dr. Read's tables was a most unfair representation of the results of modern obstetricity. He (Dr. Barnes) had analyzed his own cases. Since the publication of his Lettsomian Lectures 59 cases had come under his own observation; and he drew 24 from other sources, most of these last being treated

upon his (Dr. Barnes's) principles. The deaths were six only, or 1 in 14. And if he were to follow Dr. Greenhalgh in striking out the fatal cases on the ground that treatment was too late, he might show statistical results very far superior. He should have not 10 successful cases, but 77. Two of his cases died of pyæmia, having been treated by forced delivery—that is, in direct opposition to his principles; two were moribund when seen, and two were hopelessly anæmic. He had taken all cases as they occurred in his books without selection or arrangement, yet 26 cases fell as an uninterrupted series of recoveries, which he might fairly place against Dr. Greenhalgh's selected ten. Then as to the mortality in premature labour. Premature labour was induced under selected circumstances to avoid dangerous complications. Such cases were not to be compared with labours forced upon us by the flooding of placenta prævia. This Dr. Greenhalgh disregarded. But surely placenta prævia went for something. Then the children. Dr. Greenhalgh had been fortunate. In his small series of ten cases he had eight living children. He (Dr. Barnes) ventured to say that a larger experience would modify this result. Many dangers surrounded the child in placenta prævia; cross-births, funis presentations, immaturity and asphyxia in utero; some were born putrid. His (Dr. Barnes's) plan was eminently adapted to secure the child. But his mortality was 63. The very method of Dr. Greenhalgh of bringing on premature labor must of itself often destroy the child, for the floodings would come on at six and seven months. And in some cases flooding did not occur until the end of gestation. These were often the most dangerous. Yet here Dr. Greenhalgh's plan was not available. And what was Dr. Greenhalgh's plan? The use of a *vaginal* plug, not differing essentially from the colpeurynter of Braun. It acted like all other vaginal plugs by exciting uterine contraction, if the uterus was exitable. But, unfortunately, in the worst cases the uterus was paralyzed. In these, where art was most necessary, the plug was useless. He was surprised to hear Dr. Greenhalgh undervalue rupturing the membranes. This simple method was in many cases quite sufficient, and no method was long serviceable without it. If, in combination with rupturing the membranes, the placenta was detached from the cervical zone, so freeing the cervix, the cervix then artificially expanded by his *cervical* dilators, and the bimanual method of turning resorted to, he was confident from large experience, that a greater measure of success would be obtained than by any other especial method. He took that opportunity of statingthat the first published case of the use of the intra-uterine dilator in placenta prævia which attracted his attention belonged to Mr. Jardine Murray, of Brighton.—*Lancet*, Aug. 6, 1864.

A New Mode of Treatment of Vesico-Vaginal Fistula.—Dr. Alfred Meadows, in a paper read before the Obstetrical Society of London (May 4, 1864), contended that the usual practice of keeping the patient in bed for two or three weeks after the operation for the cure of vesico-

vaginal fistula is unnecessary, and that, on the contrary, she may be allowed with perfect safety to go about as usual immediately after the operation. The author showed that the reason given for the former practice, viz., that the parts should be kept quiet, is as fully attended to in the plan suggested as in that usually followed, because the movements of the body do not interfere with the quietude of that particular portion of the floor of the bladder where the fistula existed, there being no muscles in this region which can by their attachments prejudicially affect the part in question. With regard to the second consideration—that the urine should be kept from the surface of the fistula, either by the constant employment of the catheter or by its frequent use—the author exposed the fallacy of this argument by briefly reviewing the circumstances which exist after every operation of this kind. At first the bladder is quite empty, but, as urine gradually flows into it, the organ becomes slowly distended; and the very fact of this distension taking place by the uniform pressure of the urine, proves that contact of that fluid with every part of the bladder-wall cannot be avoided: no position of the patient can prevent it, and consequently the recumbent posture is not needed on this account, nor is the use of the catheter of any service. Two cases were detailed in which the plan here suggested by the author had been carried out with perfect success. In one, where the chloroform was not administered, the patient went about immediately after the operation, and followed her usual avocations. In the other case the patient had chloroform, and on this account chiefly she kept in bed that day; but the next day she was allowed to go out, and her cure was equally complete. In both cases the opening was large enough to admit the finger easily; and in one of them it was situated far in the vagina. The author recommended the use of many sutures, merely twisting them, and without either clamp or shot; he also advised that they should be allowed to remain some time to secure firm union, their presence occasioning no inconvenience. One of the cases cited was further remarkable, inasmuch as by the process of sloughing which had previously taken place no trace of the uterus could anywhere be discovered, and the patient has continued for some time past to menstruate through the bladder.

Successful Primary Amputation at the Hip-Joint.

Mr. James Spence records (*Edinburgh Medical Journal*, July, 1864) the following very interesting case of this:

"On the 3d of September, 1863, Robert Davidson, aged 12 years, was thrown from a truck which had been suddenly set in motion, and fell in front of it, both wheels passing obliquely over the upper part of the left thigh just below the pelvis. The accident happened at the Melrose station, and the boy was seen almost immediately by Dr. Clarkson, who adjusted the limb, and had him conveyed to his home at Newstead, about a mile distant. About two hours after-

wards, Drs. Brown and Smith accompanied Dr. Clarkson to see the case. The boy had recovered in a great measure from the shock, but his pulse was still very weak. On examination, there was found a large contused flesh wound at the upper and inner part of the left thigh, exposing the muscles, which were much torn and bruised, and allowing the finger to be passed deeply into the tissues of the limb. The femur at and below the trochanters was felt to be much shattered. The foot was cold, and pulsation in the popliteal and tibial arteries extremely weak, but there had been no great amount of blood lost.

"As it appeared to the medical attendants that the boy's only chance of life was removal of the limb by amputation at the hip-joint, I was telegraphed for, and arrived at the patient's house about 9 P. M. On examination of the injury, the contused and lacerated state of the soft parts, the shattered condition of the femur, and the consideration of the great force by which the injury had been caused, left no doubt as to the practice to be pursued. I at once coincided in the opinion which his medical attendants had expressed, although, from the depressed state of the young patient, and the proximity of the injury to the trunk, the chances of success seemed very small.

"The boy's parents having given their consent, I proceeded to perform the operation under circumstances not the most favorable. The room was small, and the only light procurable was from a small lamp on the mantelpiece, and two small candles held by a non-professional assistant; a wax taper I had brought with me was kept in reserve for exigencies. I had brought Lister's abdominal compressor, but as it could not be applied so as to command thoroughly the circulation, Dr. Smith took charge of compressing the common femoral on the brim of the pelvis, and I instructed one of the patient's friends how to command the bleeding from the posterior flap, by grasping it with one hand and pressing a large sponge upon its surface. Dr. Brown took charge of the movements of the limb, whilst Dr. Clarkson administered the chloroform. When the boy was brought under its influence, I entered my knife between the trochanter major and the anterior superior spine of the ilium, and carrying it obliquely across the thigh, brought the point out a little above the tuberosity of the ischium, cutting a short anterior flap. Dr. Brown then rotated and depressed the limb, with the view of facilitating disarticulation; but owing to the shattered state of the femur, this movement did not produce the desired effect. Fortunately, however, this caused no great delay, for my knife had opened the joint in passing across the limb; and by grasping the upper broken fragment of the bone, so as to project the head, I completed the disarticulation, and cut as large a posterior flap as I could obtain from the uninjured parts. Some vessels on the posterior flap were first secured, and then the great vessels in the anterior flap, the vein being included in a ligature. I then removed some contused and doubtful-looking portions of muscle. After all bleeding had been arrested, the flaps were brought together with sutures; and, considering the nature of the parts from which the flaps

were formed, they fitted tolerably well. The stump was then dressed, and the patient placed in bed, hot bottles applied, and some stimulus given, as he was very weak. He lost very little blood during the operation, as I ascertained by carefully collecting the blood from the stone floor, when it was found to amount to less than half a small teacupful; and altogether, with what was in the sponges, to about five ounces at most. After waiting till the little patient had completely rallied from the chloroform, and had got an opiate administered, I left him in the charge of Dr. Smith, who remained with him all night, and to whom I am indebted for the following report of the progress of the case:

"*Examination of Limb after Removal.*—On examination of the limb after removal, the femur, from the large trochanter downwards for about two inches, was found to be broken into numerous fragments, the ragged edges of which were imbedded in the surrounding soft parts. The muscles and other structures were much bruised and torn, but there was no direct injury to the large vessels or nerves.

"4*th September.* During the night, patient was very restless and delirious; pulse 134, weak. A little brandy and water was administered at intervals, but was vomited. No reactionary hemorrhage of any consequence. *Vespere.* Still restless, with delirium; pulse 130. To have opiate with a few drops tinct. mur. ferr.

"5*th.* Restless night; pulse 130, very weak and thready; sunken aspect of countenance. Beef-tea, brandy, and milk given in small quantities frequently.

"6*th.* Rather better; slept a little; less delirium; pulse 108, stronger; wound has healthy appearance, except at the bruised part of the flap, which looks sloughy.

"7*th.* Pulse 108; sloughing action extending slightly on posterior flap; fetid sero-purulent discharge. Chloride of soda lotion; opiate.

"8*th.* Pulse 90; no delirium; line of demarcation formed, showing slough, rather exceeding a square inch in extent; purulent discharge copious, and less fetid.

"9*th.* All the stitches removed, and the flaps brought together as well as possible by strips of plaster. Pulse 100.

"12*th.* Sloughs separated; an attack of diarrhœa; slight delirium. Opiate.

"14*th.* Pulse 108; diarrhœa less; stump looking healthy. Diet for the most part milk, beef-tea, wine, with a little brandy.

'16*th.* Doing well.

"20*th.* Pulse has risen to 120; had a restless night with delirium; raw surface of stump covered with patches of whitish semi-translucent membrane of pretty tough consistence; copious purulent discharge. Stimulants given in increased quantity.*

"21*st.* Pulse 120; occasional delirium; wound has same appearance.

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* "Dr. Brown informs me that diphtheria was prevailing in the district at the time."

"23*d*. Pulse 118; wound has less of its diphtheritic-looking covering.

"27*th*. Stump looks healthy, and is cicatrizing round the edges. Dressed with sulphate of zinc lotion. Pulse still high, 116; sleeps well; appetite indifferent.

"1*st October*. Pulse 110; doing well.

"4*th*. Pulse 102.

"From this time recovery was slow but uninterrupted. The patient gained strength gradually, with the aid of tonics, wine, etc. The femoral ligature did not fall off till 4th November, two months after the operation, having evidently been retained for some time after its separation from the vessel by the granulations surrounding it. By the middle of December the stump was healed, with the exception of a mere spot. Two or three weeks later this also had closed, and the patient was able to move about with the aid of crutches."

Origin, Structure, and Mode of Development of Multilocular Cysts of the Ovaries

Dr. Wm. Fox read a communication on this subject before the Royal Medical and Chirurgical Society (June 28). The first division of the paper consists of a *résumé* of the views heretofore held with regard to the origin of these cysts. The author considers that the opinions hitherto expressed on this point may be divided into two chief classes. 1. Those which attribute the cysts of the ovary either to morbidly affected Graafian vesicles, or to secondary formations from these structures. 2. Those which ascribe the multilocular forms to a morbid process arising in the stroma of the ovary, independently of the Graafian vesicles. Under the second category there is a great variety and discrepancy of opinions. With regard to the former, it has long been doubted whether the number of the Graafian follicles normally existing in the ovary is sufficient to account for the whole of the cysts sometimes found in these tumors; while the proof of any fresh formation of Graafian vesicles taking place in the adult has hitherto been of a very dubious kind, nor has any account been furnished of the mode in which secondary cyst formations proceed from them. The author has studied these conditions in fifteen of the so-called 'colloid cysts" of the ovary, for the opportunities of examining most of which he has been indebted to the kindness of Mr. Spencer Wells. He believes that all primary cysts of the ovary originate in the destruction of the ovum and subsequent accumulations of fluid in the follicle, the membrana granulosa acting as a secreting structure. From these cysts secondary cysts may originate in various ways, all of which, however, may be referred to one common type. Class A.—Cysts give off long tabular processes, lined by an epithelium similar to that of the cyst whence they spring; one cyst may give off two or three such processes at various parts of its

circumference. These undergo constrictions in their course, and thus form secondary cysts. These processes and the cysts from which they spring are most easily found in the more dense parts of the stroma. Class B.—Thin-walled cysts give off diverticula analogous to those by which the lungs, the thyroid, and some other glandular organs, both of the gusto pulmonary and genito-urinary system, originate in the embryo. These diverticula, when open by a narrow neck into the cavity of the parent cyst, expand as large pouches on its external surface, protruding into other and adjacent cysts. The neck may either expand into a large opening or may become constricted, in which latter case the original communication is destroyed. One cyst may, in this manner, give off numerous diverticula. These varieties (A and B) usually cöexist in different parts of the same tumor. They were found by the author in three out of fifteen tumors examined by him. They give rise to very compound structures, but not to the dense masses to which the names of "alveolar degeneration," "cystoid disease," and "adenoid tumors" of the ovary have been given. This variety (or Class C) results from the formation, on the inner surface of the cyst wall, of a series of tubular glands, analogous to those of the uterus, or the crypts of Lieberkühn, or the glands of the stomach. They are formed by the (1) epithelium lining, the parent cyst becoming stratified, and in its superficial layers assuming a columnar character. (2) Into this stratified epithelium, papillæ formed of connective tissue spring from the stroma of the ovary, in each of which a loop of vessels is formed. A series of densely-clustered villi is thus produced, which are converted into tubular glands by the growth upwards around these bases of the stroma of the ovary. The glands may become compound at their bases by secondary villi arising in them. They may be converted into simple cysts by the closure of their orifices; but more commonly the upward growth of the stroma surpasses that of the villi in which their summits end, and the glands become completely shut off and inclosed in the stroma, forming groups of a very compound form, of tubular structure, lined by a secreting epithelium imbeded in the wall of the parent cyst. When distended by further secretion they form the smaller and larger multilocular cysts scattered on the inner wall of the parent cyst. Other modes of cyst formation resulting in dense cystoid masses were traced by the author to these structures. Class D refers to the cyst found in the cauliflower papillary or denditric growths which spring from the interior of parent cysts. These growths originate in a number of delicate papillæ growing from a common basis, and uniting to form larger masses. They consist of a delicate stroma, derived from that of a parent cyst-wall, a loop of vessels, and a covering of epithelium. The irregularity of their growth causes spaces to be inclosed by them, lined by a secreting epithelium, and which, when completely shut off, become cysts. Various illustrations were given of this process. The author considers that in no case are the secondary cysts in the cauliflower growths of the ovary derived from single epithelium cells. The author then re-

ferred to the observations of Dr. Pflüger and Billroth on the origin of the Graafian follicles from tubular structures found in the embryonic condition of the ovary; and though not fully able to corroborate all Dr. Pflüger's views from his own observations, he has convinced himself that the Graafian follicles originate in tubular structures. He regards these cysts as resulting from a renewal in the adult of the early mode of development of the Graafian vesicle with various morbid abberations from the type of embryonic growth, and thinks they must therefore be placed in the same category with other cystic tumors growing in structures having tubular glands and ducts, especially with those of the mamma, testicle, and thyroid gland. He regards the cysts mentioned under Class D as presenting essentially the same type, inasmuch as the large papillary and cauliflower masses can only be regarded, similarly to the Haversian fringes of synovial membranes, as everted glandular structures. He has not had any opportunities of examining any multilocular cysts of the ovary containing dermoid structures; but, inasmuch as these have been shown to contain both normal hair follicles and sebaceous and sudoriparous glands—all of which structures are the frequent seat of cyst formations—he believes that they will be proved to follow the same laws of growth as the colloid cysts. The author, from chemical examinations of the fluid contents of the cysts, has been led to regard the so-called colloid matter found in them, as the result of alterations depending on the varying conditions of pressure under which they are secreted from the inner surface; and he believes that this matter cannot be considered as the result of any special form of degeneration of the tissue of the ovary. The method which the author has pursued in studying the development of the cysts of the Classes of A C D has been to make sections in the recent state with a Valentine's knife through the various parts of the stroma. The glands of Class C are best displayed by sections made vertically to the inner surface of the cyst-wall. Observations on Classes C and D are much facilitated by hardening the tissues in chromic acid solution of 2 per cent., and subsequently treating sections made by a sharp razor with liquor of soda and glycerine.—*Med. Times and Gaz.*, July 30, 1864.

The Efficacy of Phosphate of Lime in Periostitis.—The *Journal de Chimie Médicale* relates two cases of ostetis, attended with intense pain, in which Professor Piorry resorted with much benefit to the exhibition of phosphate of lime. In one patient the tibia and humerus were the seat of a circumscribed tumefaction and severe nocturnal pain. On superficial examination the osseous structures seemed to have preserved their natural consistency, but plessimetric percussion of the affected parts betrayed a loss of elasticity,

and an increased sonorousness of the bones. The precedents of the case being of a nature to indicate the presence of the syphilitic taint in the system, the professor prescribed half a grain of protoiodide of mercury night and morning, fifteen grains of iodide of potassium three times a day, and the application of anodyne poultices. This treatment was steadily persevered in for three weeks, but the pain continued with unabated violence, when M. Piorry, taking into account the swollen and softened condition of the bones, conceived that a couple of drachms of phosphate of lime exhibited daily, concomitantly with the iodide of mercury, might possibly prove advantageous. This treatment was therefore instituted, and the issue of the case justified the professor's surmise. In the course of forty-eight hours the osteocopes had much decreased, and disappeared altogether after an interval of a week. The patient being at the same time an anæmic subject, with a small heart, contracted liver, and a weak pulse, which failed when the arm was kept in a raised attitude, tonics and a generous diet were likewise resorted to.

The second patient complained of excrutiating pains in the left temporal region, which were at first attributed to neuralgia of the fifth pair of nerves, and treated accordingly, but without benefit, by the application of blisters dressed with morphia, and belladonna and opium internally. On closer inspection, M. Piorry discovered, on parting the hair, which was very thick and concealed for a time the true nature of the case, a considerable periostic tumor at the base o the parietal bone. In this instance, also, the plessimeter revealed more sonorousness and less elasticity than on the opposite side of the head. The patient, however, contended, and nothing in her previous history disproved her affirmation, that she had never been affected with any symptom of venereal disease. A drachm of phosphate of lime was exhibited night and morning, and the pains decreased in the course of four days, and in a short time a cure was effected.

In both these cases, the reader will observe that the plessimeter was used to discover the softening of the bony structures, and that in the patient whose previous history pointed to syphilis, the use of the calcareous phosphate was in nowise incompatible with the administration of mercurial preparations. We may further add, with the editor of the *Journal de Chimie Médicale*, that the appropriate salt of lime is the combination obtained by the precipitation by ammonia of a solution of the phosphate in muriatic acid; the deposit should be carefully washed, and preserved in a humid condition.—*Dublin Med. Press*, Feb. 24, 1864, from *Jour. de Méd. et Chir.*

Influence of a Long Course of Nitric Acid in Reducing the Enlargement of the Liver and Spleen that Sometimes results from the Syphilitic Cachexy.—The enlargement which Dr. Budd refers to, is that which has been latterly de-

scribed as due to amyloid degeneration. The most striking examples of it are seen in the victims of scrofulous or syphilitic caries. Three cases are related in which mxx of dilute nitric acid were taken ter die for a period varying from fifteen to four months, without inducing excessive acidity of the urine or any inconvenience attributable to undue acidity of the stomach. Sarsaparilla, iron, or bark, were conjoined with the acid. The result of his experience leads Budd to conclude that when the liver and spleen have become diseased in the manner specified, in sequel to protracted syphilitic disease of the bones, nitric acid, long taken, has a remarkable influence in gradually effecting the removal of the morbid deposit to which these organs owe their increased size, restoring the organs to a more healthy condition, and improving the general health. The cases further afford a strong presumption that nitric acid, taken earlier, would prevent the disease of the abdominal glands, which, when established, it tends to remedy. It is, however, essential that the disease of the bone, on which the enlargement of the liver and spleen is consequent, should be arrested; if this cannot be effected, the malady, though even then its course may be retarded, usually makes progress, and life is cut short by renal disease, which very often accompanies that of the liver and spleen. Budd suggests that a long course of nitric acid may have influence in remedying and preventing glandular enlargements, chronic ulcers, and other forms of scrofulous disease. He is persuaded that in tuberculous disease of the lung, nitro-muriatic acid, long taken, tends to prevent the further deposit of tubercle.—*Sydenham Society's Year-Book.* 1863, from *Brit. Med. Journ.*

Subcutaneous Injections in Ophthalmic Surgery.

Prof. Von Graefe lately delivered a series of clinical lectures on the employment of subcutaneous injections in ophthalmic surgery, of which we propose to give a brief abstract. His experiments have been only made with the acetate of morphia and the sulphate of atropia. The most favorable situation for making the injections is the middle of the temporal region, and it is this which the Professor chooses under all circumstances, unless there be some special indication, such as neuralgia or spasmodic phenomena, which makes it probable that some other point may be preferable. The integument should be well raised from the subjacent parts, the canula should be pushed into the cellular tissue, and the skin should be closely applied around the canula, so as to prevent the return of the liquid injected. The quantity of acetate of morphia employed in Graefe's experiments varied from the tenth of a grain to half a grain, a fifth or sixth of a grain being the usual quantity. The solution contained four grains of the acetate in a drachm of distilled water; it should be neuter, or very feebly acid. The physiological action is the same as when morphia is taken into

the stomach, but in general it is better marked, and consequently the amount injected ought to be smaller by about a third than the quantity which would be administered internally. The action on the iris is interesting. Often at the end of a minute, sometimes not for half an hour, the special contraction of the iris *(opium-myosis)* manifests itself. This contraction is best observed by comparing the dimension of the pupils with a moderate light. The degree and the duration of the myosis vary remarkably; in a large number of cases it remains well marked for several hours, and disappears slowly. Sometimes, in very irritable persons, spasm of the muscle of accommodation of the iris takes place; when this phenomon occurs, it is at an advanced period, at the end of the stage of irritation. The most important therapeutical indications of subcutaneous injections of morphia are, according to Graefe, the following: 1. In the case of traumatic injuries which have involved the eyeball, soon after their occurrence, and when there is severe pain; for instance, after the penetration of foreign bodies, superficial burns or wounds, the pain is more speedily allayed by the subcutaneous injection of morphia than by the instillation of solution of atropine between the eyelids. Professor Graefe is opposed to the application of leeches after the extraction of foreign bodies, after contusions, and after penetrating wounds; he looks upon them as more likely to produce than to prevent inflammation and suppuration. 2d. After operations on the eye, when they are followed within a short time by intense pain. 3. In the neuralgia of the ciliary nerves which accompanies iritis, glaucomatous choroiditis, and several forms of inflammation of the cornea. 4. As an antidote for poisoning by atropine, an action which was pointed out by Mr. Benjamin Bell in 1857. 5. In neuralgic affections of the terminal branches of the fifth pair in the frontal region, not dependent on an affection of the eye. 6. In different forms of reflex spasms, such as spasm of the eyelids in traumatic keratitis, and spasmodic contraction in the course of the facial nerve.

In the case of injections of atropia, the greatest prudence is necessary. In some persons the sixtieth of a grain is sufficient to give rise to general symptoms. In general, the first dose injected should not exceed that quantity; it may afterwards be gradually increased to the twentieth of a grain. According to Professor Graefe, the occasions for the employment of atropia in injections are very limited; and to produce the mydriatic effect, the form of instillation is preferable. Even when a full quantity is injected, the dilation of the pupils is moderate, and the power of accommodation of the iris is not superseded, whilst the desired effect is obtained by much smaller doses introduced between the eyelids. In neuralgia, injections of atropia do no good, in spasmodic affections their effect is very doubtful; so that their employment seems to be limited to cases in which the conjunctiva would not tolerate the presence of the atropia.—*Edinburgh Medical Journal*, July, 1864, from *Bull. Gén. de Thérap.*

Spondylolisthesis; with an Account of a Case of Pelvic Contraction, in which Premature Labor was induced by the Author's Method.

Dr. Robert Barnes read before the Obstetrical Society of London (April 6, 1864) a memoir embracing a history of the literature of this affection and a summary of the cases hitherto recorded. It was first described in 1853, by Kilian, who defined it as a slipping downwards and forwards of the last lumbar vertebra upon the sacrum, so that one or more of the lumbar vertebræ fell into the cavity of the pelvis, encroaching upon the space required in labor. In several cases the Cæsarean section had been necessary in order to deliver. The author added a case in which he believed this form of distortion was the cause of difficult labor. A woman, previously healthy, had been injured in the back. Considerable contraction of the pelvic brim followed. There was a marked depression in the lumbar region, and a projection internally above the promontory of the sacrum. Dr. Barnes brought on labor by this method at about the eighth month. The child was extracted by turning with some difficulty, still-born. The entire labor occupied less than five hours. The mother recovered. The remainder of the memoir was devoted to the discussion of the causes of the deformity, concerning which very conflicting views were entertained in Germany.

Mr. W. Adams observed that he had listened to the paper with great interest, as the vertebral deformity or displacement described was but little known, and required further investigation. It seemed to him that the condition described as spondylolisthesis might depend upon several causes. Rickets might give rise to it; but this would be at once apparent by the general evidences of rickets in the development of the skeleton, distortion of the legs, etc. Caries of the first sacral bone might give rise to it; and some years after destructive disease had ceased, and anchylosis produced, the prominence forward of the last lumbar vertebra might encroach considerably on the pelvic cavity. Mr. Adams had seen a few examples of this, and had one now under his care at the Orthopædic Hospital. In this case the girl presented extreme lordosis in the lumbar region, with corresponding projection of the stomach, and a sharp posterior angular prominence corresponding to the first and second sacral bones. In all probability this girl, now twenty-one years of age, could never have a living child, in consequence of the projection of the last lumbar vertebra into the pelvic cavity. Congenital dislocation of both hip-joints produces extreme lordosis in the lumbar region, and, therefore, would probably give rise to the condition described as spondylolisthesis; and Mr. Adams had also seen it produced to some extent by a sharp rotation movement, and lateral distortion affecting the lower lumbar vertebræ, as in a case described by him in the *Medico-Chirurgical Transactions*, vol. xxxvii. It was evident that a variety of causes might produce the vertebral displacement mentioned by Dr. Barnes, whose analysis

of the cases recorded in the paper would form the basis of further observations on this subject.

Mr. Brodhurst observed that this was a subject which had not received much attention in this country. He considered that the affection in question was not a true dislocation, as it was described by the author of the paper, and that it differed materially from ordinary lordosis, and from those forms of lordosis which are produced by congenital dislocations of the heads of the femurs by some very rare forms of caries of the bodies of the vertebræ, etc.; but it was induced, he said, by softening of the bodies of the vertebræ, and especially by softening and yielding of the ligaments which unite the lumbar vertebræ and the sacrum. Thus was occasioned some displacement of the bodies of the lumbar vertebræ downwards. The positions of the spinous processes showed that caries was not the cause of this affection, as had been suggested, and a section of the bodies of the vertebræ showed this fact still more clearly. He contended that this condition was due to rachitic inflammation and softening of the osseous and ligamentous structures.

Bibliographical Notices and Reviews.

Outlines of Surgical Diagnonis. By GEO. H. B. MACLEOD, M.D., F.R.C.S., EEL., Phys. and Surg. Glasgow, Lecturer on Surgery Anderson's University, Surgeon to the Glasgow Royal Infirmary and Lock Hospital, Late Senior Surgeon Civil Hospital Smyrna, and General Hospital in the Camp before Sebastapol, Mem. Cor. de lo Soc. De Chir. De Paris, and Author of the Notes on the Surgery of the War in the Crimea. First American edition, from Advance Sheets. New York: Bailliere Brothers, 520 Broadway. 1864.

This is an English book, gotten up for the purpose of increasing our knowledge of surgical diseases. To diagnose a maledy is to recognize its nature and to distinguish it from all other affections. The Fathers had an aphorism—"*Qui sufficit ad cognoscendum, sufficit ad curandum*"—which has some force. A surgeon may some times cure without comprehending every thing pertaining to a disease. Still a knowledge of the nature of disease and ability to cure, generally go together. This, too, is more true in surgery than in medicine. A large proportion of surgical diseases are readily distinguished and readily cured. Fractures, dislocations and tumors, which constitute no small part of the troubles with which the surgeon is concerned, are,

in general, so obvious that but little skill is required in understanding them. No one, however, from this circumstance should estimate too lightly these diseases. It often requires the highest order of mind and the most thorough cultivation to comprehend the exact character of a fracture, or to differentiate it from other things. Fracture of the neck of the thigh bone, or of the head within the capsular ligament, are in point. How often have these been mistaken for luxations at the hip-joint! Tumors, too, often resist the most thorough efforts of investigation. Fatty and fibrinous tumors, which of themselves generally import but little, are not always characterized so as to be distinguished from those that are malignant. History, symptoms, morbid anatomy, and the effects of remedies, invoked even to the utmost extent, fail to solve the problem. At one time the microscope was supposed to reveal a peculiarity of structure belonging to malignant tumors. At present, if we except an appearance or two, such as cells of recent development and in large proportions, we have nothing left that amounts to much as characters of malignant tumors. The history of a tumor, like the history of an individual, is of the most importance in learning its real character. If benign its origin, and its progress even through a series of years are marked by no incident prejudicial to the comfort or general health of the patient; if malignant, distress from the commencement, and during its progress a gradual impairment of all the prominent functions of the organism. So obvious become the disturbances in structure and in function that the condition has been not inaptly termed "*cancerous cachexia.*"

Marshall Hall discusses the whole subject of diagnosis under the following heads: *History*, *Semeiology*, *Morbid Anatomy*, and the *Effects of Remedies.* We like this method, whether applied to medical or surgical diagnosis. The history of a case is perhaps the most fruitful source of information concerning it. It embraces every thing pertaining to cause, age, sex, habits, idiosyncracy, and residence. In a case of fracture, for example, the *cause* embraces the character of the violence, when experienced, age of the patient, habits at the time, with peculiarities of temperament. Of recent origin, the exact character would be more likely to be appreciated than if of long standing. The subject being advanced in years, the fracture would be likely to be complete, and characterized by cripitus. On the contrary, in children many fractures are incomplete, amounting to a mere bending of the bone. Habit of the patient is a matter of great importance and should never be overlooked.

The value of symptoms in diagnosis rises so high as, in the practice of some, to entirely overshadow every thing else. The word *symptom*, derived from *syn*, "with," and *tipto*, "I fall," indicates at once the close connection that has been supposed to exist between the symptoms of a disease and the disease itself. A good definition of the term *symptom*, should imply the signs by which diseased action is characterized, the signs perceptible to the senses. This method of identifying disease embraces every thing indeed upon which the senses can operate. The eye, the ear, the smell, the sense of tactility, and the sense of taste—all are employed, directly or indirectly, in the investigation of disease. When used directly, they require to be educated and disciplined, in order that the most of which they are capable may be accomplished. To an individual whose senses have been thoroughly trained the import of a group of symptoms is pretty readily comprehended; while to one who is destitute of such advantages, the same group of symptoms would not be understood at all. Almost any one can do something in the interpretation of ordinary phenomena. But how many have the ear so well educated as to be able to comprehend the abnormal sounds of respiration, or of the heart! But from the circumstance that all efforts at cultivating the senses fall short in imparting to them perfect accuracy, we have a series of fallacies, or sensual illusions, that seem to be inseparable from the action of these organs. We can all see, but how few of us can see all that is to be seen, or see what is present in its true light!

The value of symptoms is qualified by quite a number of circumstances. It would be a very easy matter to diagnose a disease, were it always characterized by the same set of symptoms. But it is not. The symptoms vary so much that there is no one that can be said to be constantly present, no one that is really entitled to the consideration of "*pathognomonic*." Were there, indeed, a single one in pneumonia, for example, always present it would seem to be a very important guide in determining the character of the complaint. Such being the case, the practitioner of medicine or surgery who relies entirely on symptoms in the discrimination of disease, will often find himself disappointed. Without a complete knowledge of the History, most cases will remain unsolved. And the history and symptoms, even, will often prove insufficient until confirmed by morbid anatomy.

Morbid Anatomy as a means of diagnosis was unknown to the an-

cients. Dissections, even for instruction in healthy anatomy, was prohibited by law until the time of the Alexandrian school. And for a long time after the existence of this celebrated school, that may be said to have originated the sciences of Anatomy and Chemistry, the practice of dissections was allowed to but a limited extent. As a consequence, dissections for the purpose of tracing the *ravages of disease* were very uncommon. What was done had to be done secretly and in the face of laws with heavy penalties. Observations of a *pre-mortem* character, such as the inspection of skin diseases, ulcers, diseases of the eyes, fractures, dislocations, etc., of course obtained from the earliest period. But little progress, however, was made in post-mortem dissections until during the present century.

The anatomy of the body in a state of health describes the elementary tissues, their properties, and the manner in which these are arranged and distributed so as to form the different organs, and the way in which the body is developed from them. *Pathological* anatomy seeks to describe the deviations from the healthy standard, as seen in the manner in which the textures are changed, new formations foreign to the normal condition introduced *(epigeneses)*, organs altered in form, color, consistence and relations. Many regard disease as a self-existing entity, an independent organism, or pseudo-organism. The tendency, nevertheless, of the philosophers is to regard disease as a mere change in the vital phenomena of an organism; or as a departure in function or structure from the healthy standard. While all such speculations are of no earthly importance, except in the way of affording exercise for the mind, there is a point in the connection that deserves a little confidence. We can have no idea, for example, of disease without a lesion of structure. In some way or other the tissue or fluid diseased must show alteration, change from the natural state. The alteration may not always be appreciable to the senses. It may require the microscope, or even chemical tests, before made evident.

But more, what is the value of these changes of texture in a diagnostic point of view? Much in regard to the habits and characters of extinct animals may be known by examining the traces, or tracks, which these animals have made on the strata of the earth, while in the soft state. Why not, therefore, learn something of the characters of a disease from the way it has impressed itself upon the tissues? A musket ball kills, and we see the traces of it; a disease kills, and why may we not see its traces? Granting that we do, the question

occurs, Have our observations been sufficiently numerous in the dead house to establish the connection of these morbid changes with disease? Is phthisis pulmonalis, for example, the result always of the same lesions? Such questions cannot be answered in the affirmative at present. So much are the lesions of a disease varied by age, sex, habit, idiosyncracy, climate, season, and a great variety of other things, that great care is required to avoid falling into grave errors. We invoke the *numerical* method, and not without good results. Should we find in ninety-nine out of every one hundred cases of typhoid fever that ulceration of Peyer's glands is present, we would be very safe, all would say, in concluding that there must be a very close connection between the group of phenomena to which we apply the name of *Typhoid* fever and ulceration of Peyer's glands. On the other hand, are we justified, when ulceration of these glands is present, in concluding that the case is one of typhoid fever? Louis, the able advocate of the numerical system, would reply in the affirmative. Researches conducted however with the greatest care would seem to throw doubts upon the subject. There are other diseases that are attended with ulceration of Peyer's glands. Then again Typhoid fever, if we would believe Andral, occasionally occurs without any appreciable lesion of these glands at all.

Upon the whole, therefore, the value of structural lesions in diagnosis may be easily over-rated. It is only when taken in connection with the History and Symptoms that they are of any great use in making up an opinion.

The *Effects of Remedies* have been invoked in diagnosis. Marshall Hall thought well of the method. He proposed bloodletting in certain cases to determine the character of the complaint. Although drugs are scarcely ever administered for the purpose of calling out the characters of a disease, it is nevertheless very common for the physician to come to conclusions concerning the nature of the disease he is treating from the effects of the medicine administered. Take a case of ague, for example. The great diversity of phenomena to which the poison of malaria gives rise makes it often troublesome to arrive at correct views. In one instance we may have fever, in another inflammation, in another neuralgia—all the result of the same poison. Neither the symptoms in such cases, nor the history, sufficiently indicate the character of the complaint. But a dose of quinine will. The quinine is administered, the disease disappears, and what

more reasonable than to conclude, from such a circumstance, that the disease was one of malarious character?

In trying to understand the nature of disease, it should not be forgotten that much relating to the history of cases, which are really different in nature, may have something of an unity of appearance. The same remark is true of Symptoms. A single symptom may be due to a variety of causes. It is, therefore, only when a great number are present that a probability is established concerning the character of the disease.

A point not to be lost sight of in diagnosis is, that disease is often very complex, the phenomena by no means depending upon destruction in a single organ or apparatus, but due to several causes operating on different textures. Here the causes being compound, compound signs and symptoms must be present. Such circumstances must embarrass the diagnosis. To unravel the difficulty it will be necessary to distinguish between symptoms uniformly associated with certain conditions, and those merely accidental. These again must be divided into phenomena, which, though not essential, are more or less directly connected with the morbid state and those which are wholly independent of it.

Something, and perhaps no little, in diagnosis depends upon a good system of nomenclature. There is scarcely an author but what divides diseases, for the purposes of description, into *general* and *local*. But further than this there is not very much harmony as to what should be the names of individual diseases. To a certain group of phenomena we often have different names applied. Then again the tendency is to refine. What once received a single name, now has several. Then again the principle upon which diseases are often named is very whimsical. The name is given to the disease because of some single symptom or appearance (as the name Chlorosis, from the appearance of the skin), or even from a symptom or lesion purely accidental. We have had the nosological systems of Lauvages, Linnæus, Vogel, Lagar, McBride, Cullen, Darwin, Parr, Pierce, Good, Hosack. These systems are all more or less antiquated. Some of them have outlived their usefulness. What we now want is a system that shall embrace the name of the texture or fluid involved, and a name that will be most expressive of the nature of the change or alteration in the part diseased. *Hypertrophy* does well as a name for an enlarged organ. So Hyperæmia, for excess of blood in a part

But the term *Inflammation*, any one can see, is almost if not entirely a misnomer.

Upon the special subject of diagnosis, the work before us will prove very valuable. On *Fluctuation* we find some very good suggestions to the student. Fluctuation is a term applied to that equable movement in all directions which we observe in fluid, and it is easily mistaken for other conditions, especially elasticity. The Author gives the usual precaution, of taking care not to confound the sensation, from a tap, communicated to the *pulp* of the finger, with that coming to the *side* of the finger from the mere elasticity of the parts. Again, when there is a thick layer of muscle over the fluid, we should press the pus in the axis of the muscular fibre, otherwise the lateral displacement of the muscle may give a sensation that will mislead.

The subject of *Cancer* receives a very good notice. It, as we all know, is distinguished with no little difficulty in many instances from growths purely non-malignant. It is true that cancer is a *constitutional* as well as local affection; is composed of heterologous tissues altogether, that is, tissues unlike any of which the body is composed; is more common to females than males, and to the aged than to the young; and as a consequence of such facts, always has a history and sensory character that aid considerably in making up opinions. Yet the surgeon often finds himself at a loss as to the character of the complaint; and especially is this the case at the commencement. The microscope is often employed, and in the opinion of many not without advantage. Cancer in all its forms is supposed to consist, in its minute structure, of certain peculiar elements, readily recognized.

"There is a basis substance of greater or less cohesion, and a juice of exudation, in which the peculiar cancer cell is found. This cell is variously shaped, being round or oval, or spindle-shaped, or lanceolate or caudate, and inclosing large, regular, compound *nuclei*, and one or two or more bright *nucleati*. They are combined in the growth with granules and coloring matter in varying proportions."

There is quite a number of physicians who credit the revelations of the microscope with considerable strength in the way of reservations. Such are apt to think lightly of the instrument as a means of differentiating tumors. Of all such it may be said, "they know not whereof they affirm." If the eye unaided is of use in assisting the other senses to untie a pathological knot, of course it would be difficult to show that it could be less so, when its powers are increased

by the microscope. Pretty much all who have used the instrument in making out the character of tumors, agree that great care is required. While it is believed that there are microscopic phenomena peculiar to cancer, it is known that there is a very gradual shading off of these phenomena into the elements of the non-malignant tumors. In the imperfect or early development of cancer, therefore, the cancer cell may so nearly resemble the cell of some of the harmless growths, that microscopic discrimination is impossible. Cases also may occur in which the cancer elements may exist in such small amount in a tumor supposed to be cancerous, and so mixed up with other elements, that they entirely escape detection. In neither of these cases is the fault with the microscope. Its teachings are *negative*, purely. Such cases simply prove that, assisted with even the microscope, we are unable to compass the difficulty.

We here rest for the present our notice of this book. It is very well written so far as manner is concerned, and so far also as matter is concerned. Upon the whole department of Diagnosis the work is well advanced; and it is easy to see that, on special subjects, it gives the substance of what is known and relied upon.

Physician's Visiting List, Diary, and Book of Engagements for 1865. Philadelphia: Lindsay & Blakiston.

The contents embrace Almanac, Table of Signs, Marshall Hall's Ready Method in Asphyxia, Poisons and their Antidotes, Table for calculating the period of Utero-Gestation, Blank Leaves for Visiting List. For sale at Book-stores.

The Physician's Dose and Symptom Book: Containing the Doses and Uses of all the principal articles of the Materia Medica and Officinal Preparations; Also the Tables, Weights and Measures; Rules to proportion the Doses of Medicine, Common Abbreviations used in uniting Prescriptions, Tables of Poisons and Antidotes, Classification of the Materia Medica, Dietetic Preparations, Table of Symptomatology, Outlines of General Pathology and Therapeutics. By Joseph H. Wythes, A.M., M.D., Author of the Microscopist, Curiosities of the Microscope, etc., etc. Fourth Edition. Philadelphia: Lindsay & Blakiston. 1864.

This volume was compiled for the assistance of students, and to furnish a *vade mecum* for the general practitioner which would save the trouble of reference to larger and more elaborate works. That the work is appreciated the number of copies sold would seem to indicate. Already it is in the fourth edition. For sale at the Bookstores.

Lectures on Medical Education, or on the proper Method of Studying Medicine. By SAMUEL CHEW, M.D., Prof. of the Practice and Principles of Medicine, and of Clinical Medicine, in the University of Maryland. Philadelphia: Lindsay & Blakiston. 1864.

The contents embrace *five lectures.*

Lecture I. Introduction.—Power of Industry.—Whether special talents for Medicine are necessary, etc.

Lecture II. Reading as a Means of Study.—Errors in its use.—Improper selection of books.—Too much reading; its evils, etc.

Lecture III. Errors in Reading continued.—Reading without thinking.—Popular errors on the subject.—How to read to advantage.—Lectures as a help in the Study of Medicine.—Examinations after Lectures, etc., etc.

Lecture IV. Clinical Experience.—Necessity of a Hospital to every Medical School.—In what manner useful.—Observations alone not sufficient.—Examination of Patients.—Auscultation, best way of learning it.—Conversation as a means of acquiring knowledge.

Lecture V. Medical Schools.—Controversy respecting them.—Difference between American and European Schools.—Causes of that difference.—Education of our Physicians not inferior to that of our Lawyers and Clergy.—Students not to depend principally upon the Schools, but upon themselves.

That any thing could be written upon the thread-bare subject of Medical *education*, and especially at the present time, which would receive a reasonable degree of attention no one ordinarily endowed would think probable. Dr. Chew has, nevertheless, made the experiment, and it remains to be seen how he will succeed. We took time to travel through enough of the work to be enabled to form an opinion of it. It will pay perusal very well; and there are very few who have been concerning themselves with the subject of which it treats that it will not instruct. The whole subject and all its relations

are carefully considered. We do not agree with the author in some of his conclusions. But perhaps he is right nevertheless.

It is useless to expect that the standard of medical education can be above the standard of other things of like character in the country. This country is new. The present Government is less than a century old, and there were no white feet on the continent a few hundred years ago. From such facts what should be expected? Give us the time necessary to mature things, and our present medical education will be very different from what it is. England and France are both old. Both had made considerable progress in medicine before this country was discovered. Now they can prescribe authoritatively. Each has a curriculem of studies as necessary to a degree, and each has the power to enforce full compliance. In this country we have at present no rules on the subject of preliminary education. Students make their appearance at medical colleges often without a knowledge of their mother tongue. Why not turn them back to other pursuits? Such an inquiry might seem pertinent. To those, however, who understand things in this country, it would be answered by asking another one: From whence the material obtained out of which to make physicians?

A few might be induced to comply with the severest regulations in regard to preliminary education, length of time engaged in medical studies; and a few might be drawn from France and England, were superior advantages in the way of patronage held out. But how many of us are aware of the number of physicians annually required in this country in order to make up the loss by death, and the abandonment of the profession for other pursuits? Then again, we require a large number to meet the wants of an increasing population. Annually the Colleges turn out from fifteen hundred to two thousand, and yet we see no surplus. Indeed, just now we are scarce, really scarce, of physicians all over the West.

In conclusion, we say give us something practicable on Medical Education—something adapted to our condition and our form of civilization. As we grow older we will advance our standard, but it is only as we do grow older that we can do it.

A Comprehensive Medical Dictionary: Containing the Pronunciation, Etymology, and Signification of the terms made use

of in Medicine and kindred sciences; With an Appendix, comprising a complete list of all the more important articles of the Materia Medica, arranged according to their medical properties; And an explanation of the Latin terms and phrases occurring in Anatomy, Pharmacy. etc.; Together with the necessary directions for writing Latin Prescriptions, etc., etc. By J. THOMAS, M.D., Author of the System of Pronouncing in Lippincott's Pronouncing Gazetteer of the World. Philadelphia: J. B. Lippincott & Co. 1864.

This work is designed to supply a want that the author thinks has long been felt by those commencing the study of Medicine and the collateral sciences. In the United States a classical education is not made an indispensable condition for conferring a degree in Medicine. And as a very large proportion of the terms used in the profession is derived from the Greek and Latin languages, both of which are regarded as being dead, a series of difficulties are encountered in getting at the proper *pronunciation* and *etymology* of these terms.

"What correct spelling is to a writer, correct pronunciation is to a speaker. Should either be neglected, the most perfect language would soon become a Babel." All must see at once, that unless a constant effort be made to conform our pronunciation to a common standard, the language which now goes by the name of English would in a few years be spoken very differently in different parts of the world. In the pronunciation of Latin terms, or Latinized Greek terms, the author follows the *Italian* pronunciation, because being more nearly related than any other to the Latin.

We take pleasure in bringing this work to the notice of the profession. A library is incomplete without it.

Lectures on Orthopœdic Surgery: Delivered at the Brooklyn Medical and Surgical Institute; With numerous Illustrations. By LOUIS BAUER, M.D., M.R.C.S., Eng. Prof. of Anatomy and Clinical Surgery, Licentiate of the N. York State Med. Society, etc., etc., etc. Reprinted from the Phil. Med. and Surg. Reporter. Philadelphia: Lindsay & Blakiston. 1864.

The subject of Orthopœdic Surgery is beginning to attract considerable attention. Dr. Detwold, of New York, delivered a series of lectures on the subject, and Prof. L. Sayre has also given a course at

the Bellevue Hospital Medical College. The subject is not a new one. Hippocrates described club-foot; Ambrose Paré, Severinus, and others, have given us accounts of the trouble; and it is very difficult to imagine that any surgeon of character, of any age, should have overlooked deformities so striking, or should have been indifferent as to their treatment. Andry of Paris has, however, the reputation of having been successful in fixing the professional mind upon the subject, as one of no ordinary relative importance. Venel of Switzerland, nevertheless, was the first who organized an institution for the exclusive treatment of distortions. In connection with the subject, the name of Sromeyer should be mentioned. He introduced subcutaneous myotomy and tenotomy. By these operations a very large number of deformities were cured.

Orthopœdic surgery in Germany has been a favorite subject. Besides, Stomeyer, Deiffenbach, Losinser, Langebeck, and others, have contributed to the general stock.

Dr. Little of England, the founder of the Royal Orthopœdic Hospital in London, and himself a subject of club-foot (congenital), has been very conspicuously before the public as an ardent cultivator of the subject.

The Diseases of the Ear: their Diagnosis and Treatment. A text book of Aural Surgery, in the form of academical lectures, By Dr. ANTON VON TRÖLTSCH, Aural Surgeon and Lecturer in the University in Würzburg, Bavaria. Translated from the German, and edited by D. B. St. John Roosa, M.D., Assistant Surgeon to the New York Eye Infirmary. Illustrated with wood engravings: from the second and last German edition. New York: William Wood & Company, 61 Walker Street. 1864.

Such is the title of a neatly executed little volume of 254 pages, recently issued. The scope of the work, adapted as it is to an obvious want of the profession, is such as to merit careful scrutiny of its merits.

It contains twenty-five lectures. It is not so extensive, nor so lumbered with details, as to unfit it, or even render it inconvenient for the purposes of the general practitioner; and yet it is full enough for practical purposes, enough so, in fact, to make it valuable, even as a book of reference.

Other duties forbid the full study of it at present. A careful perusal of the first five lectures, however, gives us a very favorable impression. It is mostly direct and clear, occasionally forcible, in style, and candid in spirit; at the same time it abounds in evidence of liberal experience, careful research, sound judgment, and practical discrimination on the part of the author.

In the lectures perused, the only thing we notice that strikes us as new, relates to the author's method of illuminating the meatus auditorius externus. To our conception this is of vital importance. As a practical or therapeutical matter, any method of illumination by which the whole surface of the meatus, with that of the membrana tympani, can by simple and accessible means be brought fairly and fully into view, can scarcely be put at an exaggerated estimate. Promising ourself an early opportunity of putting his method to the test, we insert his account of it in full:

"But it is not necessary to have any artificial light, or complicated contrivances, in order to always obtain a strong, deeply reaching illumination of the canal and membrane. If we take a sufficiently large and strong concave mirror, and throw by means of it a strong stream of ordinary daylight upon the ear, we can see the parts clearly to the minutest portion, which with the naked eye is impossible, and this method sweeps away all the evils attending the other ones. The mirror must be of 5–6″ focal distance, and not less than $2\frac{3}{4}$ to three inches in diameter. Metal mirrors are not so good as glass, and it is most convenient if they are perforated in the centre, or the quicksilver covering can be removed at this point. The mirror of the opthalmoscope is not adapted for this purpose, being too small and having too small a focal distance, and consequently we cannot detect minute changes. Coarser distinctions, such as if the membrana tympani is wholly or partially covered, grey or red, if the canal be stopped or free, we can generally well enough ascertain with the small mirror.

In certain cases, e. g. during operations, or the administration of an air bath, I fasten the mirror to the forehead, as in the use of the Laryngoscope. The use of the reflector enables you to turn the ear away from the window, the patient being between the window and the surgeon. We can examine adults most easily in the standing position; in the case of children the patient sits or places the little patient on a stool, so as to be parallel with him.

"Since the ear lies in the middle of the head, we do well to lower it a little, or place it slightly to one side in order that no portion of the mirror may be shadowed. We very soon learn how to place the mirror and the patient, so that we have the very best point of illumination. If we give the mirror a slight motion to one side or the other we quickly find the best relative position of the deepest part. White or light grey clouds afford here as with the microscope the best light. Sunlight thrown directly into the ear is too dazzling, and excites at the same time a distinct feeling of heat in the membrana tympani.

If we find the sunlight immediately opposite this, we turn the patient away to the other parts of the sky.

"Experience will teach us that this method of examination is preferable to all others, and that its advantages in opposition to those formerly practiced are very great. The colorings of the part are not changed as with an artificial light; but are given back distinctly and truly. The necessary appliances* are simple, not costly, and portable. The greatest advantage of this method of illumination, however, is that it may be practiced in all kinds of weather, when the patient lies in bed (if necessary with a candle), and we are not obliged to turn the patient to a window if it be too far off, and a light colored wall be near.

"Furthermore, the examination of the ear in this manner is easy and convenient, there is no danger of making a shadow with our heads, and we can yet come very near to the patient, and see clearly the smallest and finest distinctions in form and color. It is by no means difficult to learn this method of examination, and it has proved itself a good and practical one."

We have already alluded to the work as being rather direct and clear in style. To this, whether as the fault of the author or the translator we are not in position to judge, there are occasional manifest exceptions. As an instance, we refer the reader to the sentence in this quotation, closing the second paragraph: "We can examine adults most easily in the standing position; in the case of children, the patient sits or places the little patient on a stool, so as to be parallel with him."

The latter part of this sentence is certainly very obscure. We are gratified to state, however, that obscurity is by no means a prevalent fault of the book, and that it is thus rather marred than seriously injured.

The translator has made occasional additions, a work for which he is well fitted by his large experience in aural surgery. He has, furthermore, very satisfactorily met the requirements of his position as editor. We feel fully warranted in heartily commending this little book to the liberal patronage and attentive consideration of the profession.

J. W. H.

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* They may be obtained at the surgical instrument manufacturers in New York.

Editorial and Miscellaneous.

"*Medicine in Cincinnati.*"

In this number we republish an article, from the *Lancet and Observer*, on Medicine in Cincinnati. It will be noticed that the subject is reviewed for some time back, and the conclusions arrived at are by no means flattering to those who have figured in the management of medical schools in the Queen City. Of the truth of the charges preferred, the reader must be his own judge.

The Ohio Medical College is the only medical college in the State that receives State patronage. It does; and it is this circumstance that gives, at times, a political cast to its movements. The present Board of Trustees and the present Faculty are the result of a turn in the political wheel.

How far the state of Medicine, of which, the *Lancet* complains, is the result of "personal piques, " "selfish schemes," &c., as the reviewer suggests, we have no means of knowing. It is generally known that some very good teachers have left Cincinnati. Drake, the most remarkable medical man of this Continent, left the place several times, because, as he stated, of troubles he was unable to control; and he really spent the most useful portion of his professional life in the schools of other cities. Eberle, so long a resident of Cincinnati, died while engaged in delivering a course of lectures in the school of a neighboring State. The names of a number of gentlemen, some dead, and some still living and giving character to the schools of neighboring States, might be mentioned as having left Cincinnati for other theatres of usefulness. That all these gentlemen, however, were driven offby "personal piques" and "selfish schemes," as the *Lancet* seems to suggest, is a matter with reference to which there is room for some diversity of opinion.

The *Lancet* seems to summon, among other things, the circumstance that the Ohio Medical College has never been favored with large classes, to prove that Medicine in Cincinnati is at rather a low ebb. Between premises and conclusions here, almost any one might have some considerable difficulty in seeing the connection.

A small class is no evidence of poor teaching or of the inefficiency of a medical school. If it were, then pretty much all the schools of Europe could be proven inefficient. In England, and on the Continent, the classes are small, very small, when compared with some in our country. The truth is, the smaller the class the more likely it is to be benefited by the efforts of Professors.

To what extent "*home talent*" has been discouraged and kept in obeyance by those having the management of the college in Cincinnati, but few have any means of knowing, except the parties interested. It is certainly wrong, very wrong, if not cruel, to discourage "home talent." The party doing it should not be spared the retribution due sinners of the first class. But is "talent" really a thing that depends on circumstances, good or bad? Is it affected at all by measures even calculated to discourage it? Does it not rise up in spite of opposition, of all kinds, however well directed? The circumstances surrounding Jenner, Hunter, Harvey, Newton, were not more favorable than those that have surrounded the young Æsculapians of the Queen City. The Pharaohs, the Ptolemies, and the Cæsars, gave us our start in the way of letters, numbers and physical sciences. But did either of these, or all of them together, possess the advantages for investigation now enjoyed by most of the young men of Cincinnati?

The practice of appointing Professors from abroad when chairs have been made vacant, is complained of by the *Lancet*. This, it is alleged, has been done to an extent by no means warranted by the best interests of the school. Why go abroad for Professors when there are plenty just as good at home? Why even neglect teachers at home who have been tried and found worthy, for those from a distance who are novices in the business? Such are some of the questions raised for public consideration by the *Lancet*. What gives point just now to such remarks, is the fact that during the past autumn the Ohio Medical College was reorganized, so far as its Faculty is concerned. The result of this reorganization is a Faculty made up almost entirely of foreigners, two of whom have had no experience whatever in teaching in a medical college.

There are at the present time in Cincinnati not a few medical gentlemen who are just as competent to teach Medicine as any who are engaged in the business in the West. Why, therefore, not go to work and organize one or two new schools. It may be

said, "If two or three new schools were organized the classes would be too small to be profitable." If mere pecuniary reward be the object of the teacher, there are but two or three schools in the United States worthy his attention. But if on the other hand, character and usefulness be the object, there is scarcely any class too small. The Professors abroad—in England and on the Continent—lecture to small classes, or rather to classes that *we* call small. Andral and Rokatansky lecture to but few students—often not more than fifteen or twenty.

Hospital in connection with Starling Medical College.—The opportunity is now presented of organizing a Hospital in connection with Starling Medical College, to be managed by the "Sisters of St. Francais," an Order of Sisters whose sole vocation is that of keeping charity hospitals.

In the erection of the College building, a very large part of it was arranged for hospital purposes. This portion, owing to the exhaustion of the funds necessary to finish it, passed into private hands, by whom it has been finished and held until the present time. A debt has been created upon it, which has prevented its being occupied in accordance with the wishes of the founder, the late Lyne Starling. Now, however, the opportunity is presented of removing this encumbrance, and of placing it in the line of operations indicated by the Deed of Trust; and it is to be hoped the Trustees will lose no time in availing themselves of the very favorable circumstances with which they are now surrounded, of organizing an institution so vital to the College, and so important to our city.

The tendency of the day is to have hospitals in connection with colleges. Whether right or wrong, public opinion regards a Medical College as incomplete, imperfect, without a hospital. This feeling is so general and so decided, that no college, however well conducted in other respects, can afford to disregard it. Where there is no hospital, something must be trumped up to serve as an apology for one. Such shifts, however, soon wear out, and the students at last patronize the schools that have real hospital facilities. A knowledge of disease is the sum of the student's purposes in attending lectures. He looks upon all the departments

as contributing to the great end of making him acquainted with diseases, and the method of curing them. In the lecture room the student is made acquainted with the character of the enemy, the topography of his situation, the strength of his resources; but it is in the hospital that the fight takes place. Here, and here alone, can be seen the order of attack, the disposition of forces necessary to victory and the hand to hand conflict with the enemy.

LATER.—The enterprise is consummated.

New Books.—We have on our table a number of new books, new editions, monographs, etc., notices of which will appear in our next issue.

Gross' Surgery—Third Edition.—This work has just been received. We have no time for anything more, in this issue, than the announcement that the work, THIRD edition, is for sale at the book stores.

We learn that the author has expended two and a half years of arduous labor upon the edition before us. "Every chapter has been thoroughly revised; the text has been augmented by an amount of matter nearly equal to two hundred pages, and a considerable number of wood cuts have been introduced. Many portions have been entirely re-written, and every effort has been made to condense the language."

The author has abundant reason to be pleased with the manner in which this work has been received, both at home and abroad. In July, 1859, the first edition made its appearance.

This and also a *second* were rapidly exhausted, and now, in a period of a little more than five years, a third edition seems to be demanded. The work has been favorably noticed abroad, and has been translated into the Dutch language. As a systematic treatise it is destined to rank high. This edition may be regarded as an expression, and a very good one, too, of surgery as it is understood and practiced at the present day. Although not exactly an encyclopædia, it nevertheless embraces a consideration of pretty much everything belonging to the department. In this

respect it differs from most of the works now in the hands of the profession, which are limited to the leading diseases.

Slade on Diphtheria: Its Nature and Treatment; with an account of its history and treatment in various countries.—This is a second and revised edition of the essay to which was accorded the Fiske-Fund Prize of 1860.

Our knowledge of the nature, causes, and treatment of Diphtheria is still lamentably deficient. There is scarcely a physician but what has seen the disease and treated it. But how little any of us know of it!

Keyser on Glaucoma: Its Symptoms, Diagnosis and Treatment.—The author has tried in this essay to lay before the reader, in an easy and practical form, the latest theories relating to Glaucoma, so as to enable him to grasp the most salient and important points in the symptoms, diagnosis and treatment.—Philadelphia, LINDSAY & BLAKISTON, 1864.

Gunshot Wounds, and other Injuries of Nerves; by S. Weir Mitchell, M. D., Geo. R. Morehouse, M. D., and Wm. W. Keen, M. D., Acting Assistant Surgeons U. S. A., in charge of U. S. A. Wards for Diseases of the Nervous System.—The contents embrace *eleven chapters.* Philadelphia, J. B. LIPPINCOTT & Co., 1864.

Beasley's Book of Prescriptions.—Containing 3,000 prescriptions collected from the practice of the most eminent surgeons and physicians, English, French and American; comprising also a compendious history of the Materia Medica, lists of the doses of all officinal or established preparations. Philadelphia, LINDSAY & BLAKISTON, 1865.

This is a *second*, from a revised London edition. The publish-

ers have undertaken to make the work more acceptable to the American public by translating into plain English all the Latin directions for dispensing the prescriptions and administering the medicines.

Fuller on Rheumatism, Rheumatic Gout and Sciatica—Pathology and Treatment; from last London Edition. *Philadelphia*, LINDSAY & BLAKISTON, 1864. The reader will understand that this is the *third* edition of this very able work. Great care has been bestowed upon this edition, and the author hopes that he has added some good things to his former labors.

Obituaries.—Prof. JONATHAN KNIGHT, of New Haven, died on the 25th of August last, in the 75th year of his age. For many years Dr. Knight filled the chair of Surgery at Yale Medical Institution. He was the President of the Convention which organized the American Medical Association. After the Association was organized, he was elected to the Presidency (1853–4).

The death of Prof. BENJ. SILLIMAN, Sen., is announced in the papers of the east. He died at an advanced age. To the public he has been long known as the principal editor of the *American Journal of Science and Arts*, a work that has reached its xxxvii. volume.

Dr. WM. PEPPER, late Professor of the Practice of Medicine in the University of Pennsylvania, died at his residence in Philadelphia on the 15th of October, in the 56th year of his age.

Apology.—The late appearance of the present Number is due to the circumstance that an accident occurred to our printing machinery.

Prof. W. W. DAWSON, M. D., has resigned the chair of Anatomy and Physiology in Ohio Medical College.

Chronic Hydrarthrosis of the Knee Joint successfully treated by the Injection of Tincture of Iodine after Tapping.—A late writer on Diseases of the Joints, in the third volume of Holmes' "System of Surgery" (Mr. Athol Johnson), in dwelling upon Dropsy of Joints, observes that, in old and neglected cases, the affection resists all ordinary treatment, and must either be abandoned as incurable or further measures must be had recourse to, the most practicable of which is iodine injection, employed as in ordinary hydrocele. This mode of treatment was first introduced by Bonnet, of Lyons, and has been practiced occasionally, though rarely, by Mr. Erichsen, Mr. Barwell and others, with very satisfactory success. A number of cases have been placed upon record by Dr. Robt. L. Macdonnell, of Montreal; and we add another, where, after all other treatment had persistently failed, iodine injection was curative.

From our own experience in watching cases under treatment, the pure tincture of iodine, as preferred by Bonnet, seems more beneficial and positive in its effects than when diluted with water; and this point is worthy of especial remembrance. A certain amount of inflammation invariably follows this mild operation, and this must be prevented from going too far, or proceeding to suppuration, by retaining the limb in a state of complete quietude.

The following notes were furnished by Mr. C. St. Auburn Hawken, house-surgeon to the hospital:

Wm. S——, aged twenty, was admitted into Northumberland ward on the 14th of January last. The patient stated that three years and a half since he received a blow upon his knee. Six months afterwards, apparently without any assignable cause, the knee became swollen and was painful, so that he could not, being a tailor, rest his board upon it. He was seen by a surgeon, and the joint was blistered, and afterwards painted with iodine. This reduced the swelling; but the knee remained stiff, though free from pain. He continued now to use it for nine months, at the end of which time it again became swollen, and another blister was applied, which gave such relief that he was enabled to continue his work for another year, although during the whole time it remained larger than that of the opposite side. A year ago it again swelled and pained him slightly; and he then took cod-

liver oil, and rubbed the same into the joint. It was sufficiently relieved for him to use it again (now as a painter) until Christmas last, when, it having resumed its old condition, he came into the hospital.

On admission, the joint was greatly distended with fluid, slightly painful, but not red. He had a strumous aspect, and he stated that his mother died from consumption. A blister was applied over the joint, and he was ordered an ounce of the mixture of iodine of potassium thrice a day, with full diet. The blister was repeated from time to time, but it did not reduce the swelling. Mr. Holt now ordered the knee to be put up in Scott's dressing, and it was so kept for six weeks; but, when removed, no difference in the size of the joint was perceived. It was now painted with tincture of iodine, still without benefit; and afterwards a solution of nitrate of silver (twenty grains to the ounce) was applied, but without affording any relief.

Failing in all ordinary treatment, on April 19th Mr. Holt punctured the joint with a small trocar, and removed a considerable quantity of thin, serous, and slightly yellow fluid, and afterwards injected equal parts of iodine and water. The joint was put upon a ham splint.

On the following day the joint was about the same size as before the injection, but not painful or even tender to the touch. This treatment was attended by some good results; for on May 10th the joint, which before the injection measured fifteen inches and a quarter, was now reduced to fourteen inches three quarters. Beyond this the injection did no further good; and after the expiration of another month, finding the joint remain the same size, Mr. Holt punctured it a second time. Upon this occasion the fluid was more purulent, but less in quantity. Two drachms of undiluted tincture of iodine were now injected, and left in. The patient did not experience any pain, and on the following day the joint was more swollen, but not painful. From this time the joint gradually decreased in size, and after another month measured thirteen inches. He was also able to leave his bed, first walking with the aid of crutches, and afterwards with sticks, when he left the hospital for the country, being able to get about with comparative comfort.—*Lancet*, Sept. 3, 1864.

Cancer in the Male Breast.—The occurrence of scirrhus in the male breast is proverbially rare; nevertheless, examples have presented themselves to the surgeon at almost every metropolitan hospital, the majority of which have been recorded in our "Mirror." The following is an additional example occurring at the Metropolitan Free Hospital, under the care of Mr. Borlase Childs, the notes of which were furnished by Mr. R. C. Grubb, the house-surgeon:

Charles R——, aged sixty, admitted July 5th, 1864. Is a thin spare man. States that he has always been very healthy, and is not aware that any of his family have been afflicted with cancer. First remarked the tumour about four months ago; since then it has gradually grown larger, slowly and without pain. He attributes it to a habit of frequently pressing his chest against the edge of a bin, whilst leaning to reach its contents.

The tumour is on the right breast, and involves the nipple; it is about the size of a walnut, and feels slightly nodulated. There is no implication of the limphatic system, and the patient's appetite and general health are unimpaired.

July 11th—Chloroform having been given by Mr. Coleman, Mr. Childs removed the tumour by an oblique elliptical incision, and brought the edges together with sutures.

The further progress of the case presents no feature of interest, except that the patient was discharged on July 30th, with the wound almost healed.

On section the tumour cut crisply. Microscopic examination showed a basis of fibro-cellular tissue, with the granular, nulceated, and irregularly shaped cells, usually considered pathognomonic of cancer.—*Lancet*, Sept. 3, 1864.

Foreign Body in the Trachea quickly giving rise to Inflammation of Epiglottis.—The following curious case lately occurred at Guy's Hospital. The question might be asked, on reading it, whether the condition of the epiglottis found after death did not precede the insufflation of the piece of apple-skin; for it may be said that choking was almost instantaneous, and the changes observed could not have occurred after death, nor in the interval of the few moments before demise.

John H——, aged twelve, was brought to the hospital, dead, on the 15th ult. The boy was eating a piece of apple, and some one tried to take it from him, when he was suddenly seized with great distress, and died. After death, the skin about the neck and grions was stained purple, and the face bloated. The body was well nourished. The right side of the epiglottis had a dark-red patch, and on this were five or six small collections of purulent fluid. Just below the cricoid cartilage there lay in the trachea a piece of apple-skin, the size of a bean, with a quantity of slimy mucus about it. The lungs were congested, and did not collapse. —*Lancet*, Sept. 3, 1864.

Talipes Equinus from Contraction of the Muscles of the Calf consequent on Deep-seated Abscesses.—M. W——, æt. 11 years, a pale but otherwise healthy-looking child, was admitted into St. Bartholomew's Hospital Feb. 27th, 1864, under the care of Mr. Holmes Coote. Four years ago, without any apparent cause, the left leg became swollen and tender, and deep-seated abscesses formed in the calf, preventing her walking for many months.

On admission the limb was found so much contracted that she could only just touch the ground with the toes. She constantly used a crutch.

On March 25th Mr. Coote divided the tendo-Achilles subcutaneously; and on the 1st of April a Scarpa's shoe was applied, the ends of the divided tendon having reunited. Extension was kept up, slowly increasing, until April 20th, when the foot was in perfect position, and had all the normal movements.

May 15th.—She was discharged, cured. She has a boot with irons, and a stop-joint at the ankle to prevent the heel being again dragged upwards by the recontraction of the tendon; but she walks perfectly well.—*Ibid.*

Medicine in Cincinnati.—For more than forty years the city of Cincinnati has in some sort been a leading medical centre in the heart of this great valley of central and western American States. During all these years, a worthy list of great names have from time to time been engaged in the public teaching and public and private practice, of medicine in all its departments of surgery,

practice, and obstetrics. In the early pioneer days of our Queen City the foresight and ambition of the great Drake, secured the establishment of the Medical College of Ohio, and as its strong right arm and collateral, the Commercial Hospital; and from that time to the present, notwithstanding the bickerings of professional jealousy, these two to a fair degree have gone hand in hand in the labor of medical education; so that we may claim for the medical instructions of Cincinnati a well devised and excellent linical character long before that important feature became so justly prominent in the requirements of professional education.

Succeeding Drake, and associated with him, from time to time, in this city, have been some of the very greatest medical lights of American medicine and surgery. There was Godman so early cut off in his bright promise, and the lamented Staugton; Parker and Gross; Eberlie and Mitchell; John Locke, John Bell, Cole, and Reuben D. Mussey. What a long list we might record, some of them long since gone to their reward—some actually driven from our ranks by petty piques, now give dignity and honor to other cities and other schools of medicine.

But with these advantages of centrality, established institutions, for educational and hospital purposes and great teachers, what a poor showing have we to record after all these forty years! What imperfect results have we accumulated, to mark the toil of brain and waste of muscle! All through this great teeming valley of the Mississippi are the hundreds of useful practitioners of our art, who exhibit the parchment of this City; we thank God at least we can point to this worthy monument. But where is our strong, overshadowing school of medicine?—we ought to have it. Where is our Hospital structure, commensurate with the wants of so great a City, and in harmony with the present plans and hygienic improvements? Where is our pathological Museum? The surgical and medical practice and autopsies of the Commercial Hospital alone ought to have built up a museum second to old Guy's Hospital. Where are our cabinets of Natural History, our Libraries, our Philosophical and Physiological Laboratories? Where, in a word, are the evidences of our proud status and influence as a great and progressive profession? those things to which we love to point our medical guest when he comes amongst us.

We retrospect these things with a sense of painful humiliation;

and yet sometimes the tracks of old wounds require an honest probe.

It would be vain and invidious to record the causes which have made for us our peculiar medical history; besides, they are not singular to us alone; college warfares, professional jealousies, ill-devised enterprises, failures and trimps sadly blended, belong to every city of which we have any knowledge, and with some the record is more marked in every respect than our own. Some of the most distinguished universities abroad hold members of their Faculty who, individually holding a world-wide celebrity, hold each other in personal contempt.

With us, as elsewhere, the medical college has controlled to a great extent—at least given shape to our professional character and direction to individual ambition and effort; and unfortunately, notwithstanding the distinguished gentlemen who have at various times adorned our ranks, the building up of a great medical school, with its details, has too generally been a secondary consideration; medical schools and hospital amphitheatres have been made subordinate to the promotion of personal advancement and private ends. This great evil has necessarily involved several others, and first of all—frequent changes, with no permanent harmonious co-operating faculty.

Individuals have been connected with the school for years, but still frequent revolutions and reorganizations have been the rule. It is bootless to say how these commotions have originated. Some of them have resulted from shameful internal dissensions unknown to the outside until the explosion occurred—perhaps outside pressure may have had its share of influence. Still this cry of "clique," which is charged upon the profession of our city as the cause of all our woes, is simple and ridiculous. For years the voice of the departed Drake was most potent for mischief in certain circles and with certain minds; and if a proposition was made by certain parties, no matter what, but concerning the interests of medicine or teaching, there was at once raised the warning cry, "Beware—that is one of Drake'e schemes;" and if certain men made any effort for personal or professional improvement, he would hear the same admonition, "Look out for him—he's a Drake man." But Drake is dead, and now we do him reverence. Since that spirit is laid, the ghost of those terrible Miamis has come among us to

terrify the timid old ladies of our craft. They have a vast amount of sin to account for, and we fear the memory of their energy and harmony as a vigorous school will long trouble us, at least till some new shadow darkens and haunts our pathway.

One great mistake in the history of our medical politics has been the perpetual disposition in certain quarters to import material for professorships from abroad, under various fanciful ideas of supposed peculiar availability. It is scarcely in human nature to anticipate the very cordial co-operation of a home profession, with an institution by which it is thus systematically ignored. Hence a large proportion of these appointments have sadly disappointed both the school and the appointees.

Consistent with the same policy, has been that other disposition to discourage the efforts of home talent for special professional improvement; especially almost every attempt at private teaching, which really has a tendency to foster and strengthen the schools, has been smothered, and embarrassed in every conceivable mode, apparently under the impression that personal or school rivals might possibly grow out of these individual enterprises. In other cities these private schools and individual courses of instruction form very strong additional attractions, gathering in the aggregate crowd of patronizing students.

We fear we are trespassing on the patience of some of our readers, who may fancy our remarks invidious, and for the present we close our criticisms. What we have said is well known here to be true, while abroad our troubles are known without their philosophy; still we should not, at this time, have rehearsed these difficulties and unfortunate mistakes, were it not that we believe we have good reason to hope that we are now entering upon radical changes in our policy that shall set up a new order of things. —*Cincinnati Lancet and Observer.*

Clinical Lecture on Scarlatina after Operations. By JAMES PAGET, Esq., F. R. S. (delivered at St. Bartholomew's Hospital). —Mr. Paget, referring, in the course of a clinical lecture, to a case of lithotomy recently under his care in the hospital, said:

The boy lately operated on for stone had scarlatina; at least an eruption exactly like that of scarlatina appeared over nearly the

whole surface on the day after the operation, with general febrile dsturbance. Two days later, it began to fade; and in a few days had disappeared, and left him in about the same state that we may suppose he would have been in if no such illness had occurred. All went on well for a month; the wound was nearly healed; and he was deemed convalescent, when, perhaps in consequence of exposure to cold, he had severe pain in passing urine, and evacuated with it a considerable quantity of blood from the kidneys, and tenacious mucous. Two days after this, he had sore-throat; then an eruption like scarlet fever, again appeared; and it continued for three days, and was succeeded by desquamation. The urine in about ten days had gradually regained its natural condition, and he again seemed well. But now whooping-cough set in, and again retarded, though it did not finally prevent, recovery.

If I had never seen a case similar to this, I should have hesitated to call it scarlatina; for the symptoms of the first attack were very incomplete, and those of the second were unusual and disorderly. But I believe the case was really one of scarlatina, modified by the circumstances in which it occurred; and that it may be reckoned with other similar cases in illustration of some interesting general principles.

About this time last year, when scarlatina was very prevalent, I saw six cases after operations in private practice; I have notes of four more that occurred either before or since; and I have heard of many more. By some, these cases may be supposed to have been only casual coincidences of scarlatina with surgical diseases; but, if they were so, we ought to find a proportionate number of cases among surgical patients not operated on. But this does not happen. In private practice, I do not remember to have seen scarlatina supervene in any surgical cases except those in which operations had been performed; and, in hospital practice, I doubt whether it is much more frequent among all the other patients taken together than it is in those who have been operated on. I cannot, therefore, doubt that there is something in the consequences of surgical operations which makes the patient peculiarly susceptible of the influence of scarlatina poison. And, together with this susceptibility, we may observe that the disease undergoes in them certain modifications, especially in the period of incubation, which is much shortened. In all the ten

cases that I have noted, the eruption appeared within a week after the operation; and in eight of them, within three days after it; namely, in two cases, on the first; in three, on the second; and in three, on the third day. Other deviations from the typical course of scarlatina were, that in some of the cases the eruption came out over the whole surface at once, and on the limbs more fully than on the face and chest: in some, there was no sore-throat; in others, no desquamation.

The cases are not numerous enough to determine the import of these variable deviations from the type of scarlatina; but that in which all of them, whether complete or incomplete in other characters, agreed, namely, the very early period after the operation at which the rash appeared, deserves particular notice. It adds to the evidence, that the appearance of scarlatina is in some way connected with the early consequences of operations. If it were not so, and if patients after operations had only the same liability as others, there would be no reason why the eruption should appear early, rather than late, after the operation; but, so far as I have seen, it always appears early—always within the first week.

Two explanations may be offered of this fact. Either the condition induced in a patient by a surgical operation is one that gives a peculiar liability to the reception of an epidemic or contagious morbid poison, and any one of these, being imbibed immediately after the operation, produces its specific effect in much less than the usual period of incubation; or else those who suffer with scarlatina within a few days after operation had previously imbibed the poison, but would not have manifested its effects so soon, if at all, unless their health had been exhausted or disturbed. The second of these explanations appears rather the more probable; for it is in accordance with what has been observed when many persons have been exposed to the contagion of fever, and some have been afterwards exhausted by fatigue or otherwise. These have had fever; while those who rested after exposure have escaped it.

But whatever explanation may be given, the fact of peculiar liability to scarlatina after operations seems certain, and may be important in relation both to the pathology of the disease and to the risks of surgery. In one of the cases which I have seen, it was fatal; in another, it was followed by fatal pyæmia; and I think it not improbable that, in some cases, deaths occurring with

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